"Making a Difference"

COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING AND BUILDING
STAFF REPORT

Tentative Notice of Action

MEETING DATE	CONTACT/PHONE	APPLICANT	FILE NO.
August 5, 2005	Marsha Lee	Greenspace/Fiscalini –	DRC 2003-00045
LOCAL EFFECTIVE DATE	788-2008	Santa Rosa Creek	
August 19 ,2005		Stabilization	
APPROX FINAL EFFECTIVE DATE			
September 9, 2005			

SUBJECT

Request by Greenspace for a Minor Use Permit/Coastal Development Permit and Grading to allow the Fiscalini/Santa Rosa Creek bank stabilization project that requires the movement of the existing channel away from the rapidly eroding left bank and incorporating hard and soft protective measures to the left bank. The length of the stabilization site is approximately 350 feet. The project includes approximately 3.75 acres of site disturbance. The stabilization project is located on Santa Rosa Creek Road, approximately ¼ mile upstream of the Ferasci Road crossing on the Fiscalini property east of the community of Cambria, in the North Coast planning area.

RECOMMENDED ACTION

1. Consider and rely on the Mitigated Negative Declaration that was previously adopted on July 7, 2004 in accordance with the applicable provisions of the California Environmental Quality Act, Public Resources Code Section 21000 et seq.
2. Approve Minor Use Permit/Coastal Development Permit DRC2003-00045 based on the findings listed in Exhibit A and the conditions listed in Exhibit B.

ENVIRONMENTAL DETERMINATION

A previously completed Mitigated Negative Declaration, filed July 7, 2004, completed by State of California, The Resources Agency, Department of Fish and Game acting as the lead agency, finds that there is no substantial evidence that the project may have a significant effect on the environment. Mitigation measures are proposed to address soil, vegetation, wildlife, water quality and aquatic life and are included as conditions of approval. The County, acting as a responsible agency, is using the Mitigated Negative Declaration and will make findings pursuant to CEQA Guidelines Section 15096.

LAND USE CATEGORY	COMBINING DESIGNATION	ASSESSOR PARCEL NUMBER	SUPERVISOR DISTRICT(S)
Agriculture	Local Coastal Plan, Flood Hazard, Sensitive Resource Area, Streams / Riparian Vegetation, Geologic Sensitive Coastal appealable	013-161-002	2

FINAL ACTION

This tentative decision will become the final action on the project, unless the tentative decision is changed as a result of information obtained at the administrative hearing or is appealed to the County Board of Supervisors pursuant Section 23.01.042 of the Coastal Zone Land Use Ordinance; effective on the 10th working day after the receipt of the final action by the California Coastal Commission. The tentative decision will be transferred to the Coastal Commission following the required 14 calender day local appeal period after the administrative hearing. The applicant is encouraged to call the Central Coast District Office of the Coastal Commission in Santa Cruz at (831) 427-4863 to verify the date of final action. The County will not issue any construction permits prior to the end of the Coastal Commission process.

PLANNING AREA STANDARDS: No Area Plan standards	
LAND USE ORDINANCE STANDARDS: Local Coastal Plan; Geologic Study Area; Flood Hazard; Sensitive Resource Area; Streams and Riparian Vegetation *Does the project conform to the Land Use Ordinance Standards:* Yes - see discussion	
EXISTING USES: Santa Rosa Creek with riparian vegetation and surrounded by agricultural activities	
SURROUNDING LAND USE CATEGORIES AND USES: *North:* Agricultural / Creek and Agriculture *East:* Agricultural / Creek and Agriculture *South:* Agricultural / Creek and Agriculture *West:* Agricultural / Creek and Agriculture	
TOPOGRAPHY: steeply sloping creek bank	VEGETATION: grasses, forbs, riparian vegetation
PROPOSED SERVICES: The project is a proposal to stabilize a portion of a creek bank no services necessary	ACCEPTANCE DATE: May 5, 2005

DISCUSSION

PLANNING AREA STANDARDS:

There are no planning area standards that relate to this project.

LAND USE ORDINANCE STANDARDS:

Section 23.07.164 - Sensitive Resource Area (SRA)
Section 23.07.170 - Environmentally Sensitive Habitats
Section 23.07.174 - Streams and Riparian Vegetation (SRV)
Section 23.07.060 - Flood Hazard
The project is consistent with the ordinance standards, findings are made for SRA and SRV designations and are found in Exhibit A. Refer to Coastal Policies below.

Project Description

This is a request by Greenspace, the Cambria Land Trust for a Minor Use Permit/Coastal Development Permit and Grading to allow the Fiscalini/Santa Rosa Creek bank protection project. The project has two main objectives: 1) reducing the sediment input by stabilizing the eroding bank and 2) creating refugia and food sources for steelhead within Santa Rosa creek. Satisfying both of these objectives requires the movement of the existing channel away from the rapidly eroding left bank and incorporating protective measures to the north bank. The length of the stabilization site is approximately 350 feet and is characterized by an approximately 25 foot high near vertical section of the north bank. Protective measures include boulder and willow rootmass, rock wing deflectors, cabled rock at toe of the channel and coir fabric on the slope. The project includes approximately 3.75 acres of site disturbance

Need for the project: The project site is located on Santa Rosa Creek approximately ¼ mile upstream of the Ferasci Road crossing on Fiscalini property. The project site is approximately 350 linear feet; The left (north) bank is a vertical, 30 ft. high, non-vegetated bank that is actively eroding due to channel cutting at the toe. Vegetation has established on the right (south) side of the channel thereby eroding the toe of the left bank. To the right of the channel is approximately 225 ft. of flood plain area with an overflow channel approximately 20

feet to the right of the active channel. A historical channel is found on the right bank along Santa Rosa Creek Rd. and encompasses a large meander bend. According to the landowner, a tree fell at the upstream reach of the project site diverting flow toward the left bank that has continued to erode for over a decade.

Objectives:

- To improve steelhead habitat by reducing sediment input into Santa Rosa Creek by stabilizing eroding bank.
- Creating a food source, lowering water temperature, and creating root structure to hold soil in place will improve steelhead habitat by establishing native vegetation on newly created creek bank.
- Reducing surface run-off and pesticide input into the creek by building a fenced buffer zone along the agricultural field the length of the project at top of creek bank.

To achieve objectives one and two, the applicant intends on moving the active channel into the over flow channel while replicating the current stream distance. Fifty feet upstream of the eroded bank are two point bars. The upstream point bar will be shaved down and material will be used to build the other one up to move the channel toward the overflow channel. In addition three rock wing deflectors, facing upstream, will be keyed into the left bank to redirect the flow into the new channel. The overflow channel will be graded to current stream grade, slope, and width. Established vegetation on the bank will be left to add stability and canopy to the new channel. Native vegetation that must be removed will be incorporated into project re-vegetation efforts. The toe of slope will be moved out approximately 15 to 35 feet; varying to replicate stream distance and meander. A rock toe will be installed, using appropriately sized quarried granite rock, along entire reach of project. The applicant intends on using 1 ½ to 2-ton rock in the project design. The rock toe will be placed in a 3 ft. toe trench and will be built up to bankfull. Material, if suitable, from excavated channel and floodplain will be used to backfill behind rock toe extending to left bank. Additional suitable material will be brought in from offsite on an as needed basis. The left bank will be constructed with a flood bench; width and height will be determined by design component of project. Flood bench will be re-vegetated with native riparian plant species. Cuttings and seed from native California sycamore, alder, and cottonwood will be collected from the site and propagated. A 1 ½:1 slope will extend from constructed flood bench to top of bank. Donated fill material from landowner will be used to 'dress' the newly created slope. Coir fabric will be installed on slope to avoid erosion. Slope and top of bank will be re-vegetated using native riparian and upland species. Seven boulder clusters with willow rootmass, will be installed in new channel to create pool diversity and habitat. All rock that will be under flow stress will be cabled by California Conservation Corps (CCC) crews using 5/8" galvanized cable and Hilti adhesive glue. The newly created channel will 'tie in' at the project end with a boulder and rootmass structure.

The third objective will be achieved by fencing along top of slope, which will create a 10 ft. buffer zone between the agricultural field and the top of bank. During the project construction window the area just outside of the 10 foot buffer will be used for staging and stockpiling materials.

CCC crews will complete all hand labor components of project including diversion of creek, erosion control, re-vegetation efforts, and rock cabling. Techniques outlined in CDFG Manual, *California Salmonid Stream Habitat Restoration Manual* will be used throughout the project. Santa Rosa Creek will be diverted before construction and fish in dewatered area will be removed and placed in suitable habitat upstream by California Deparment of Fish and Game (CDFG) personnel.

The project reporting, implementation, coordination, and monitoring will be the responsibility of Greenspace-the Cambria Land Trust and the construction management will be co-managed by the California Conservation Corps Field Supervisor and Greenspace-the Cambria Land Trust. Co-management construction activity will consist of multi-tasking between grading and placing rock, cabling rock, re-vegetation of creek bank, existing riparian mature vegetation transplanting, and rock clusters and root masses.

Heavy equipment anticipated for grading, existing riparian vegetation transplanting, and rock placement will be track, or rubber tired equipment.

Known limiting factors addressed by project: The project addresses four issues limiting anadromous fish production; Excessive sediment yield, riparian dysfunction, water quality, and estuary/lagoon issues.

Limiting factor remediation: The project is designed to reduce sediment load and estuary/lagoon infill issues by stabilizing a 350-foot run of non-vegetated, vertical creek bank from active erosion caused by the low flow undercutting. This condition causes erosion and sedimentation on-site and downstream. The Santa Rosa Creek estuary/lagoon is located approximately 5 miles downstream and sediment from the proposed project site typically deposits fines on this nearly level gradient reach of the drainage.

Riparian dysfunction will be remedied by moving the low flow channel to an existing by-pass channel by grading, building rock deflectors, placing armor at toe of new channel bank and re-vegetation. Transplanting existing mature riparian vegetation behind the armored lining, back-filling and re-vegetating the bench and the 1 ½:1 slope will create a vegetated left bank complementing the existing vegetated right bank. The newly created low flow channel will now have canopy cover on both sides of the reach and have boulder clusters and willow rootmasses placed instream creating further shelter, food sources, and water temperature control for steelhead that does not currently exist. The streambed will now be cobbles instead of the sediment bed it currently flows over.

The newly created stream bank bench, and slope will improve water quality by re-vegetating with willow cuttings from the project area and cuttings grown from project area sycamores, cottonwoods, and alders. This re-vegetation will further protect the stream bank from high water flows. As important, water quality will be improved by eliminating sediment, fertilizers, and pesticides from entering the project area by creating a buffer zone between the top of bank and lands under cultivation. This buffer zone delineates the riparian zone from the farming operation.

Project Tasks and Results: The project will be broken into nine multi-task units.

Task 1. With permission from the landowner and the CDFG, seed and cuttings from riparian plants at the project site be collected, germinated, and grown in the Greenspace greenhouse. Contact relevant agencies to determine permitting requirements (Army Corps of Engineers, Regional Water Quality Control Board, County of San Luis Obispo, U. S. Fish and Wildlife Service/National Marine Fisheries Service, and California Department of Fish and Game).

Task 2. Once grant funding is announced a planting, harvest, and replanting crop schedule will be planned with the property owner allowing for access to the property during the window of construction activity. The CCC will provide funding for the project design and engineering. A Contract with the California Coastal Conservancy and engineering subcontractor will be agreed upon and implemented. Simultaneously, permitting agencies will be notified, meetings scheduled, and applications prepared for required permits and consultations.

Task 3. An excavation contractor will be chosen based on competitive bid and available time. Coordinating start times with the CCC and supervisors, the biological monitor (qualified California Red-legged Frog Monitor), and the excavation contractor based on crop harvest completion and permit schedules.

Task 4. Conduct first pre-construction biological assessment (Dr. Galen Rathbun) for presence or absence of California Red-legged Frog (CRLF). These surveys will be conducted at night and will give the project supervisors and biological monitor information to better monitor the species and coordinate construction activities.

Task 5. Grub and mobilize for needed access from Santa Rosa Creek Road to work area. This task will allow for adequate ingress and egress of equipment and materials into the project site. Vegetation that can be removed for later transplanting will be set-aside for later use.

Project grade controls (markers for grading and estimating existing site materials that can be incorporated into the project) will be taken and an assessment of imported fill material established.

Task 6. Dewater the work site by grading the bypass channel to achieve gravity flow, direct water into corrugated pipe, erect any needed silt fencing and grub only necessary plant material needed for the three deflectors. Materials deemed suited for transplanting into the project work area will be set in areas surrounded by silt-fencing for later use.

Granite to accommodate the three deflectors will be delivered while dewatering is being done and subsequent deliveries timed as needed. This will ensure that orderly progress is achieved maximizing equipment time and minimizing project duration.

Task 7. All rockwork will begin upstream and end downstream. Upstream gravel bars will be removed and stockpiled. Construction on first and longest deflector begins. Work on second and third deflector follows. Once deflectors are built, rock cabling begins on completed deflectors. Excavation and placement of rock at toe of by-pass channel begins. Backfilling and transplanting of mature riparian existing vegetation and fill material are simultaneous. Once the trenched toe is lined with boulders, backfilled and planted, the creek bank bench is then created with additional backfill. Some of the backfill will be shaved from an existing floodplain adjacent to the project site. Additional fill will used from the adjacent landowner. The 1 ½: 1 slope from the newly created bench to top of bank is then formed and planted. Appropriate equipment will make the final grade and exit on same property. As the slope is formed, coir fabric is spread, and planting takes place cabling the rock in the toe of the new channel will be concurrently accomplished.

The boulder clusters and rootmass will be placed strategically in the newly formed channel. Cabling the clusters will be done directly following the completion of each of the seven clusters. Remaining equipment will leave the project site grading and repairing any entry ramps created on entry. The silt fencing will be taken down and any further cabling will be completed. The dewatering piping will be disassembled allowing the creek water to now flow freely in the new low flow channel.

Task 8. Fencing and irrigation will be the last construction task to be completed. The CC will install the drip line irrigation from the property owners existing well to the newly planted stream bank vegetation. A watering protocol will be implemented during the dry season to ensure the success of the new plantings.

Task 9. The post construction biological assessment for CRLF will be conducted within two months of project construction completion. The survey will be conducted at night.

Special Status Species Considerations: Three special status species have the potential to be in or near the work area, Steelhead trout, CRLF, and tidewater goby . To protect the steelhead, the work site will be isolated from the creek. For the CRLF, mitigation measures as conditions of approval, will be taken to assure protection of the species during construction. For the Tidewater goby, mitigation measures intended to protect steelhead trout are anticipated to also protect the tidewater goby.

List of Permits Required:

- U.S. Army Corps of Engineers - Nationwide Permits #27 and #33 (#27 is for the riparian habitat improvement and the #33 is for the water diversions necessary for the installation of the project)
- California Department of Fish and Game - Streambed Alteration Agreement (1602)
- Regional Water Quality Control Board - 401 Water Quality Certification.

- National Marine Fisheries Service – Biological Opinion for the Fisheries Restoration GIrants Program (FRGP) on May 21, 2004.
- Local Permits - County of San Luis Obispo Coastal Development Permit

Equipment Access - All heavy equipment work will be undertaken from the top of the bank. All heavy equipment will be fueled and maintained at a location 100 feet or further from the stream. Small gas powered appliances such as pumps or generators will operate within the channel. These will be placed inside sealed-bottom containers so any fuel or oil leaks will be contained.

COASTAL PLAN POLICIES: This project is in compliance with the Coastal Plan Policies, the most relevant policies are discussed below.

***Environmentally Sensitive Habitats*:**

Policy 1: Land Uses within or adjacent to Environmentally Sensitive Habitats. *The project is a anadromous fish habitat/creek enhancement project ,and therefore consistent with this policy*

Policy 2: Permit requirements. *The applicant has provided a biological report (Biological Opinion from USFWS for the Proposed California Department of Fish and Game Fisheries Restoration Grant Program Regional General Permit, dated August 17 2004.) and it has been determined that the project as proposed will not have a significant impact on the sensitive habitat and is consistent with the biological continuance of the habitat and concurrence was received..*

Policy 3: Habitat restoration. *The County requires the restoration of damage habitats as a condition of approval. The proposed project is to restore fish habitat and enhance the creek.*

Policy 18: Coastal Streams and Riparian Vegetation. *The project is a proposal for streambank stabilization, this will enhance the habitat.*

Policy 19: Development in or adjacent to a coastal stream. *The proposed project will not degrade the coastal habitat and will be compatible with the continuance of the habitat.*

Policy 20: Fish and Game Review of Streambed Alteration. *The proposed project will require a Streambed Alteration Agreement from the Department of Fish and Game.*

Policy 21: County and State review of coastal stream projects. *The proposed project will require a Water Quality Certification from the Central Coast Regional Water Quality Control Board, and is a condition of approval.*

Policy 23: Streambed Alterations. *The project is a proposal to improve fish habitat at Santa Rosa creek, and proper mitigation measures have been incorporated as conditions of approval.*

Policy 24: Riparian Vegetation. *The project is a proposal for streambank stabiliztion, the long-term benefits to the creek will enhance the habitat.*

Agriculture:

Policy 1: Maintaining Agricultural Lands. *The proposed project is consistent with this policy because the proposed project will not negatively impact the existing agricultural operation*, and is designed to prevent erosion of agricultural soils.

Does the project meet applicable Coastal Plan Policies: Yes, as conditioned

COMMUNITY ADVISORY GROUP COMMENTS: The North Coast Advisory Council heard this item at the November 17, 2004 meeting and recommended approval with no comments.

AGENCY REVIEW:
The County Planning Department has contacted various agencies for their comments on the proposed project. When a response was made, it is either attached or in the application file:

- RWQCB – 401 Water Quality Certification, dated April 22, 2005 for California Dept of Fish and Game, 2003 and 2004 Fisheries Restoration Grants Program from State Water Resources Control Board (SWRCB) – in file

- Department of Fish and Game – Stream flow modeling should be conducted for both upstream and downstream reaches. (Refer to Fiscalini Bank Stabilization Hydraulic analysis and Preliminary Design Evaluation Report prepared by Kamman Hydrology & Engineering, Inc., dated February 2005); 1603 Streambed Alteration Agreement granted from the Department of Fish and Game, which includes review of the National Marine Fisheries Service NMFS and US Fish and Wildlife Service.
- Army Corps of Engineers – 404 Permit, Regional General Permit, dated September 9, 2004, was obtained by CDFG for the 2004 Fisheries Restoration Grant Program

- Public Works - Recommends approval
- Cambria CSD – no comment
- California Coastal Commission - No response

Staff report prepared by Marsha Lee and reviewed by Matt Janssen.

EXHIBIT A - FINDINGS

Environmental Determination

A. ENVIRONMENTAL DETERMINATION:
A previously completed Mitigated Negative Declaration for The Fisheries Restoration Grant Program, filed July 7, 2004, was completed by State of California, The Resources Agency, Department of Fish and Game acting as the lead agency, found that there was no substantial evidence that the project may have a significant effect on the environment. Mitigation measures are proposed to address soil, vegetation, wildlife, water quality and aquatic life and are included as conditions of approval. The County, acting as a responsible agency, is using the Mitigated Negative Declaration and making findings pursuant to CEQA Guidelines Section 15096.

Minor Use Permit

B. The proposed project or use is consistent with the San Luis Obispo County General Plan because the use is an allowed use and as conditioned is consistent with all of the General Plan policies.

C. As conditioned, the proposed project or use satisfies all applicable provisions of Title 23 of the County Code.

D. The establishment and subsequent operation or conduct of the use will not, because of the circumstances and conditions applied in the particular case, be detrimental to the health, safety or welfare of the general public or persons residing or working in the neighborhood of the use, or be detrimental or injurious to property or improvements in the vicinity of the use because the creek bank stabilization project will not conflict with the surrounding lands and uses and would reduce erosion of adjacent agricultural soils.

E. The proposed project or use will not be inconsistent with the character of the immediate neighborhood or contrary to its orderly development because the project is a creek stabilization project and will not conflict with the surrounding lands and uses.

F. The proposed project or use will not generate a volume of traffic beyond the safe capacity of all roads providing access to the project, either existing or to be improved with the project because the project is located on a local road constructed to a level able to handle any additional traffic associated with the project construction and maintenance.

Coastal Access

G. The project site is not located between the first public road and the ocean, therefore, the proposed use is in conformity with the public access and recreation policies of Chapter 3 of the California Coastal Act

Sensitive Resource Area

H. As conditioned, the development will not create significant adverse effects on the natural features (Coastal Stream) of the site or vicinity that are the basis for the Sensitive Resource Area designation, and will preserve and protect such features through site design because the project has been designed to enhance the habitat.

I. Natural features and topography have been considered in the design and siting of all proposed physical improvements because the proposed project is to enhance the habitat.

J. The proposed clearing of topsoil, trees, is the minimum necessary to achieve safe and convenient access and siting for the creek bank stabilization project, and will not create significant adverse effects on the identified sensitive resource.

K. The soil and subsoil conditions are suitable for any proposed excavation and site preparation and improvements have been designed to prevent soil erosion, and sedimentation of streams through undue surface runoff.

Streams and Riparian Vegetation

L. The proposed project is a creek bank stabilization project that is an allowable use (construction of improvements to fish and wildlife habitat) within the creek bank, therefore no alternative locations and routes are feasible or more environmentally damaging because the project is located in the most beneficial area.

M. Adverse environmental effects have been mitigated to the maximum extent feasible.

N. The adjustment to the riparian setback is necessary to allow the creek bank stabilization project an allowable use (construction of improvements to fish and wildlife habitat), the project is located in the most beneficial area.

O. The adjustment is the minimum that would allow for the establishment of the creek bank stabilization project.

EXHIBIT B - CONDITIONS OF APPROVAL

Approved Development:

1. This approval authorizes
   a. Moving the active channel into the over flow channel while replicating the current stream distance.
   b. Fifty feet upstream of the eroded bank are two point bars. The upstream point bar will be shaved down and material will be used to build the other one up to move the channel toward the overflow channel.
   c. Three rock wing deflectors, facing upstream, will be keyed into the left bank to redirect the flow into the new channel
   d. The overflow channel will be graded to current stream grade, slope, and width. Established vegetation on the bank will be left to add stability and canopy to the new channel.
   e. The toe of slope will be moved out approximately 15 to 35 feet; varying to replicate stream distance and meander. A rock toe will be installed, using appropriately sized quarried granite rock, along entire reach of project. The rock in the project design is 1 ½ to 2-ton rock. The rock toe will be placed in a 3 ft. toe trench and will be built up to bankfull. Material from excavated channel and floodplain will be used to backfill behind rock toe extending to left bank. Additional suitable material will be used from adjacent property, as needed.
   f. The left bank will be constructed with a flood bench; width and height will be determined by design component of project.
   g. Native vegetation that must be removed will be incorporated into project re-vegetation efforts. Flood bench will be re-vegetated with native riparian plant species. Cuttings and seed from native California sycamore, alder, and cottonwood will be collected from the site.
   h. A 1 ½:1 slope will extend from constructed flood bench to top of bank. Donated fill material from landowner will be used to 'dress' the newly created slope.
   i. Coir fabric will be installed on slope to avoid erosion. Slope and top of bank will be re-vegetated using native riparian and upland species.
   j. Seven boulder clusters with willow rootmass, will be installed in new channel to create pool diversity and habitat. The newly created channel will 'tie in' at the project end with a boulder and rootmass structure.
   k. Install fencing along top of slope, which will create a 10 ft. buffer zone between the agricultural field and the top of bank.

2. All development shall be consistent with the approved site plan, cross section and approved project description.

THE FOLLOWING CONDITIONS SHALL OCCUR PRIOR TO START OF CONSTRUCTION

3. If work is conditioned to start before July 31, surveys will be required. The work window at individual work sites could be advanced if surveys determine that nesting birds will not be impacted.

4. **During all activities at project work sites**, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

5. Staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high water channel and associated riparian area. Stationary equipment such as motors, pumps, generators, compressors, and welders located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans. Vehicles will be moved out of the normal high water area of the stream prior to refueling and lubricating. The contractor shall ensure that

contamination of habitat does not occur during such operations. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

6. The contractor shall ensure that the spread or introduction of invasive exotic plants shall be avoided to the maximum extent possible. When practicable, invasive exotic plants at the work site shall be removed.

7. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action.

8. Any equipment work within the stream channel shall be performed in isolation from the flowing stream. If there is any flow when the work is done, the contractor shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

9. For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of a filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.

10. Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by an individual on foot to displace wildlife and prevent them from being crushed.

11. For any work sites containing western pond turtles, foothill yellow-legged frogs or tailed frogs, the contractor shall provide to the CDFG contract manager for review and approval, a list of the exclusion measures that will be used at their work site to prevent take or injury to any individual pond turtles or frogs that could occur on the site. The contractor shall ensure that the approved exclusion measures are in place prior to construction. Any turtles or frogs found within the exclusion zone shall be moved to a safe location upstream or downstream of the work site, prior to construction.

Specific Measures For Endangered, Rare, Or Threatened Species That Could Occur At Specific Work Sites

12. CDFG will survey all work sites for rare plants prior to any ground disturbing activities. Rare plant surveys will be conducted following the "Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities" (CDFG, 2000). These guidelines are available on the web at: http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml.

13. If any special status plant species are identified at a work site, CDFG will require one or more of the following protective measures to be implemented before work can proceed:

    a) Fencing to prevent accidental disturbance of rare plants during construction,

    b) On-site monitoring by a qualified biologist during construction to assure that rare plants are not disturbed, and

c) Redesign of proposed work to avoid disturbance of rare plants.

14. If it becomes impossible to implement the project at a work site without potentially significant impacts to rare plants, then activity at that work site will be discontinued.

15. CDFG shall ensure that the contractor or responsible party is aware of these site-specific conditions, and will inspect the work site before, during, and after completion of the action item.

California red-legged frog (*Rana aurora draytonii*)

The potential for impacts to CRLF will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the U. S. Fish and Wildlife Service, Biological Opinion dated August 17, 2004 and August 13, 2004. Prior to start of construction, DFG proposes to implement the following measures to minimize adverse effects to the CRLF and its habitat:

16. **At least 15 days prior to the onset of activities**, the CDFG will submit the names(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities will begin until the DFG has received written approval from the Service that the biologist(s) is qualified to conduct the work.

17. A Service-approved biologist will survey the work site at least two weeks before the onset of activities. If red-legged frogs are found in the project area and these individuals are likely to be killed or injured by work activities, the Service-approved biologist will allow sufficient time to move them from the site before work activities resume. Only Service-approved biologists will participate in activities with the capture, handling, and monitoring of red-legged frogs.

18. **Before any construction activities begin on a project**, a Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training shall include a description of the red-legged frog and its habitat, the importance of the red-legged frog and its habitat, the general measures that are being implemented to conserve the red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

19. A Service-approved biologist shall be present at the work site until such time as removal of red-legged frogs, instruction of workers, and habitat disturbance has been completed. The Service-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by the Corps and Service during review of the proposed action. If work is stopped, the Corps and the Service shall be notified immediately by the Service-approved biologist or on-site biological monitor.

Red-Legged Frogs

20. **Prior to the onset of any project-related activities**, the approved biologist must identify appropriate areas to receive red-legged frog adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain suitable habitat, not be affected by project activities, and be free of exotic predatory species (ie., bullfrogs, crayfish) to the best of the approved biologist's knowledge.

Hazards And Hazardous Materials

21. For work which will disturb the channel bottom (grading and channel dredging) in areas that had historic hydraulic gold mining, or historic mercury mining (as outlined above), pre and post-project testing of macro invertebrate will be done. This testing will consist of:

22. **Prior to project implementation**, if required, a mercury bio-assessment of macro-invertebrates expressed as total mercury in mg/g of macro-invertebrates tissue will be done. Macro-invertebrate samples will be collected directly upstream and downstream of the project site, in accordance with methods described in the December 2003 *California Stream Bio-assessment Procedure* and May 7, 2003 laboratory protocol entitled *Mercury in Tissue* (FIMS Mercury Rev. 3).

23. The results of the pre-project mercury bio-assessment will be reported to the appropriate RWQCB(s) at least 30 days prior to project initiation. If mercury is detected, the project may proceed only with RWQCB concurrence. If the Executive Officer has not disapproved the project within 30 days of receipt of CDFG's report, the project may proceed under this certification.

24. **Immediately following implementation of the project**, and for one additional season thereafter (ie., two sampling events), complementary mercury bio-assessment of macro-invertebrates (total mercury/mg) will be done directly upstream and downstream of the project site. The results of the post-project monitoring will be reported in DFG's Annual Reports.

Hydrology And Water Quality

25. Before work is allowed to proceed at a site, CDFG will inspect the site to assure that turbidity control measures are in place.

Other

Riparian Vegetation:

26. The extent of riparian vegetation removal shall be minimized. A nighttime survey for CRLF shall be carried out just prior to construction, as well as an early morning survey for CRLF and SWPT. Detected CRLF or SWPT shall be captured and relocated. A qualified biologist shall be present during the vegetation removal to detect, capture and relocate any CRLF or SWPT that may be detected. Understory plant life shall be removed by hand to within 6 inches of the ground to aide in locating animals prior to tree removal.

Water Clarity:

27. **Prior to start of construction**, a fence of filter fabric shall be installed across the channel downstream of the project area immediately prior to re-introduction of streamflow to the primary channel.

Other Permits:

28. **Prior to commencement of work,** the applicant shall secure the following permits or show evidence that the permit is not required:

    Lake and Streambed Alteration Agreement - California Department of Fish and Game
    Section 404 - Army Corp of Engineers
    Water Quality Certification permit - Regional Water Quality Control Board.

Public Works

29. **Prior to issuance of a building permit**, the applicant meet all requirements of the County Public Works Department.

CDF/County Fire

30. **Prior to issuance of any permits** A letter of clearance from CDF/ County Fire shall be required, indicating compliance with their standards and requirements.

31. **Prior to final inspection**, which ever occurs first, the applicant shall obtain final inspection and approval from CDF / County Fire of all required fire/life safety measures.

Miscellaneous

32. **Prior to start of construction**, a grading permit is required.

33. **Prior to issuance of construction permit**, an encroachment permit shall be obtained from Public Works.

THE FOLLOWING CONDITIONS SHALL OCCUR DURING CONSTRUCTION

Air Quality Mitigation Measures

Equipment Emission Control Measures

34. The Air Pollution Control District shall require that all fossil fueled equipment shall be properly maintained and tuned according to manufacturer specifications.

35. The APCD shall require that all off-road and portable diesel-powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, shall be fueled exclusively with ARB motor diesel fuel.

36. The APCD shall require installation of oxidation catalysts on the two pieces of diesel-fueled equipment projected to generate the greatest emissions. It is expected that bulldozers would be the highest emitters.

Dust Control Measures: These measures augment dust control requirements of Section 7-8.1 of the Standards Specifications for Public Works Construction.

37. During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

38. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the morning and after work is completed for the day and whenever wind speeds exceed 15 mph.

39. Stockpiled earth material shall be sprayed as needed to minimize dust generation.

40. During construction, the amount of disturbed area shall be minimized, and on-site vehicle speeds should be reduced to 15 mph or less.

41. Exposed ground areas that are planned to be reworked at dates more than one month after initial grading should be sown with a fast-germinating native grass seed and watered until vegetation is established.

42. After clearing, earth moving, or excavation is completed, the entire area of disturbed soil shall be treated immediately by watering or revegetating soil binders to minimize dust generation until the area is paved or otherwise development to prevent dust generation.

43. Grading and scraping operations shall be suspended when winds exceed 20 mph (one hour average).

44. All roadways, driveways, and sidewalks associated with construction activities should be paved as soon as possible. In addition, building and other pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

45. All trucks hauling dirt, sand, soil, or other loose material shall be covered or shall maintain at least two feet of freeboard (minimum vertical distance between the top of the load and the top of the trailer).

Biological Resources - General Measures

46. To avoid impacts to aquatic habitat the activities carried out in the restoration program typically occur during the summer dry season.

47. Work around streams is restricted to the period of June 15 through November 1 or the first rainfall. This is to take advantage of low stream flow and avoid the spawning and egg/alevin incubation period of salmon and steelhead.

48. Planting of seedlings shall begin after December 1, or when sufficient rainfall has occurred to ensure the best chance of survival of the seedlings, but in no case after April 1.

49. If any wildlife is encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site.

50. All habitat improvements shall be done in accordance with techniques in the *California Salmonid Stream Habitat Restoration Manual*. The most current version of the manual is available at: http://www.dfg.ca.gov/habitats.

Biological Resources - Specific Measures For Endangered, Rare, Or Threatened Species

Steelhead trout (*Oncorhynchus mykiss*) trout

51. During construction - Project work within the wetted stream shall be limited to the period between June 15 and November 1, or the first significant fall rainfall. This is to take advantage of low stream flows and to avoid the spawning and egg/alevin incubation period of salmon and steelhead. Whenever possible, the work period at individual sites shall be further limited to entirely avoid periods when salmonids are present (for example, in a seasonal creek, work will be confined to the period when the stream is dry).

52. No heavy equipment shall operate in the live stream, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.

53. Work must be performed in isolation from the flowing stream. If there is any flow when the work is done, the operator shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

54. For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of a filter berm of clean

river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.

55. If it is necessary to divert flow around the work site, either by pump or by gravity flow, the suction end of the intake pipe shall be fitted with fish screens meeting CDFG and NMFS criteria to prevent entrainment or impingement of small fish. Any turbid water pumped from the work site itself to maintain it in a dewatered state shall be disposed of in an upland location where it will not drain directly into any stream channel.

56. Suitable large woody debris removed from fish passage barriers that is not used for habitat enhancement, shall be left within the riparian zone so as to provide a source for future recruitment of wood into the stream.

57. Measures shall be taken to minimize harm and mortality to listed salmonids resulting from fish relocation and dewatering activities:

    a. Fish relocation and dewatering activities shall only occur between June 15 and November 1 of each year.

    b. CDFG shall minimize the amount of wetted stream channel that is dewatered at each individual project site to the fullest extent possible.

58. All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.

59. If for some reason these mitigation measures cannot be implemented, or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to anadromous salmonids or their habitat, then activity at that work site will be discontinued.

60. DFG will implement the following measures to minimize harm to listed salmonids resulting from culvert replacement activities and other instream construction work:

    a. Effective erosion control measures shall be in-place at all times during construction. Construction within the 5-year flood plain will not begin until all temporary erosion controls (eg., straw bales or silt fences that are effectively keyed-in) are in-place down slope of project activities within the riparian area. Erosion control measures shall be maintained throughout the construction period. If continued erosion is likely to occur after construction is completed, then appropriate erosion prevention measures shall be implemented and maintained until erosion has subsided.

    b. Sediment-laden water created by construction activity shall be filtered before it leaves the right-of-way or enters the stream network or an aquatic resource area. Silt fences or other detention methods shall be installed as close as possible to culvert outlets to reduce the amount of sediment entering aquatic systems.

    c. Upon project completion, all exposed soil present in and around the project site shall be stabilized within 7 days.

61. DFG will implement the following measures to minimize harm to listed salmonids resulting from construction in the riparian corridor:

a) Retain as many trees and brush as feasible, emphasizing shade producing and bank stabilizing trees and brush.

b) Use project designs and access points that minimize riparian disturbance without affecting less stable areas, which may increase the risk of channel instability.

c) Minimize compaction by using equipment that either has (relative to other equipment available) less pressure per square inch on the ground or a greater reach, thus resulting in less compaction or less area overall compacted or disturbed.

d) At the completion of the project, soil compaction that is not an integral element of the design of a crossing should be de-compacted.

e) Disturbed and compacted areas shall be revegetated with native plant species. The species used should be specific to the project vicinity or the region of the state where the project is located, and comprise a diverse community structure (plantings should include both woody and herbaceous species). Plant at a ratio of two plantings to one removed plant.

f) Unless otherwise specified, the standard for success is 80 percent survival of plantings or 80 percent ground cover for broadcast planting of seed after a period of 3 years.

g) The spread or introduction of invasive exotic plants will be avoided to the maximum extent possible.

62. CDFG will implement the following measures to minimize harm to listed salmonids resulting from road decommissioning activities:

a) Woody debris will be concentrated on finished slopes adjacent to stream crossings to reduce surface erosion; contribute to amounts of organic debris in the soil; encourage fungi; provide immediate cover for small terrestrial species; and to speed recovery of native forest vegetation.

b) Work sites will be winterized at the end of each day when significant rains are forecast that may cause unfinished excavations to erode. Winterization procedures shall supervised by a professional trained in erosion control techniques and involve taking necessary measures to minimize erosion on unfinished work surfaces. Winterization includes the following: smoothing unfinished surfaces to allow water to freely drain across them without concentration or ponding; compacting unfinished surfaces where concentrated runoff may flow with an excavator bucket or similar tool, to minimize surface erosion and the formation of rills; and installation of culverts, silt fences, and other erosion control devices where necessary to convey concentrated water across unfinished surfaces, and trap exposed sediment before it leave the work site.

c) Adequate erosion control supplies (gravel, straw bales, shovels, etc.) shall be kept at all restoration sites to ensure sediment is kept out of water bodies.

d) Mulching and seeding is required on all exposed soil which may deliver sediment to a stream.

California red-legged frog (*Rana aurora draytonii*)

63. During construction, a qualified biologist shall survey the project site each morning prior to construction work to capture and relocate any detected CRLF or SWPT. The biologist shall continuously monitor stream bank restoration work so that any detected CRLF or SWPT may be captured and relocated.

64. **During construction**, temporary exclusionary fencing such as silt fence shall be erected around the work areas within Santa Rosa Creek during stream bank recontouring and other construction activities to minimize intrusion of wildlife in the work area.

65. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

66. All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 65 feet from any riparian habitat or water body. The Corps and the DFG will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the DFG will ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

67. A Service-approved biologist will ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible. Areas disturbed by project activities will be restored and planted with native plants.

68. The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries will be clearly demarcated.

69. Ground disturbing activities in potential red-legged frog habitat will be restricted to the period between July 1 and October 15.

70. To control erosion during and after project implementation, DFG will implement best management practices, as identified by the appropriate Regional Water Quality Control Board.

71. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain down stream flows during construction activities and reduce the creation of ponded water. Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the lease disturbance to the substrate.

72. A Service-approved biologist will permanently remove from the project area, any individuals of exotic species, such as bullfrogs (*Rana catesbiana),* centrarchid fishes, and non-native crayfish to the maximum extent possible. The biologist will have the responsibility to ensure that their activities are in compliance with the Fish and Game Code.

73. If red-legged frogs are found and these individuals are likely to be killed or injured by work activities, the Service-approved biologists must be allowed sufficient time to move them from the site before work activities resume. The Service-approved biologist must relocate the red-legged frogs the shortest distance possible to one of the predetermined areas. The Service-approved biologist must maintain detailed records of any individuals that are moved (eg., size, coloration, any distinguishing features, photographs (digital preferred) to assist in determining whether translocated animals are returning to the point of capture. Only red-legged frogs that are at risk of injury or death by project activities may be moved.

74. Biologists who handle red-legged frogs must ensure that their activities do not transmit diseases. To ensure that diseases are not conveyed between work sites by the Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force must be

followed at all times.

Hazards And Hazardous Materials

75. The contractor shall have dependable radio or phone communication on-site to be able to report any accidents or fire that might occur.

76. Heavy equipment that will be used in these activities will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.

77. Work with heavy equipment will be performed in isolation from flowing water, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.

78. All equipment operators will be trained in the procedures to be taken should an accident occur. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

79. All activities performed in or near a stream will have absorbent materials designed for spill containment and cleanup at the activity site for use in case of an accidental spill.

80. All fueling and maintenance of vehicles and other equipment shall be located at least 20 meters from any riparian habitat or water body. The contractor shall ensure contamination of habitat does not occur during such operations.

81. Location of staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high water channel and associated riparian area. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action. To avoid contamination of habitat during restoration activities, trash will be contained, removed and disposed of throughout the project.

82. Stationary equipment such as motors, pumps, generators, compressors, and welders, located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans.

83. All internal combustion engines shall be fitted with spark arrestors.

84. The contractor shall have an appropriate fire extinguisher(s) and fire fighting tools (shovel and axe at a minimum) present at all times when there is a risk of fire.

85. Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.

86. The contractor shall follow any additional rules the landowner has for fire prevention.

87. Any gravel imported from offsite will be from a source known to not contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings.

Hydrology And Water Quality

88. Work shall be conducted during the period of lowest flow.

89. Work shall be performed in isolation from flowing water. If there is any flow when the work is done, the contractor shall construct coffer dams upstream and downstream of the excavation site and divert all

flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

90. For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.

Cultural Resources Mitigation Measures

91. **In the event that any human remains are discovered or recognized** in any location other than a dedicated cemetery, no further excavation of disturbance will occur at the site or in any nearby area reasonably suspected to overlie adjacent human remains until:

a. The coroner of the county in which remains are discovered has been informed and has determined that no investigation of the cause of death is required; and
b. Notify the County Planning and Building Department, Environmental Division.
c. If the remains are of native American origin:
   i. The descendents from the deceased native Americans have made a recommendation to the landowner or the person responsible for excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in California Public Resources Code 5097.98,
   ii. Or the native American Heritage Commission has been unable to identify a descendent or the descendent has failed to make a recommendation within 24 hours after being notified by the Commission.

Noise

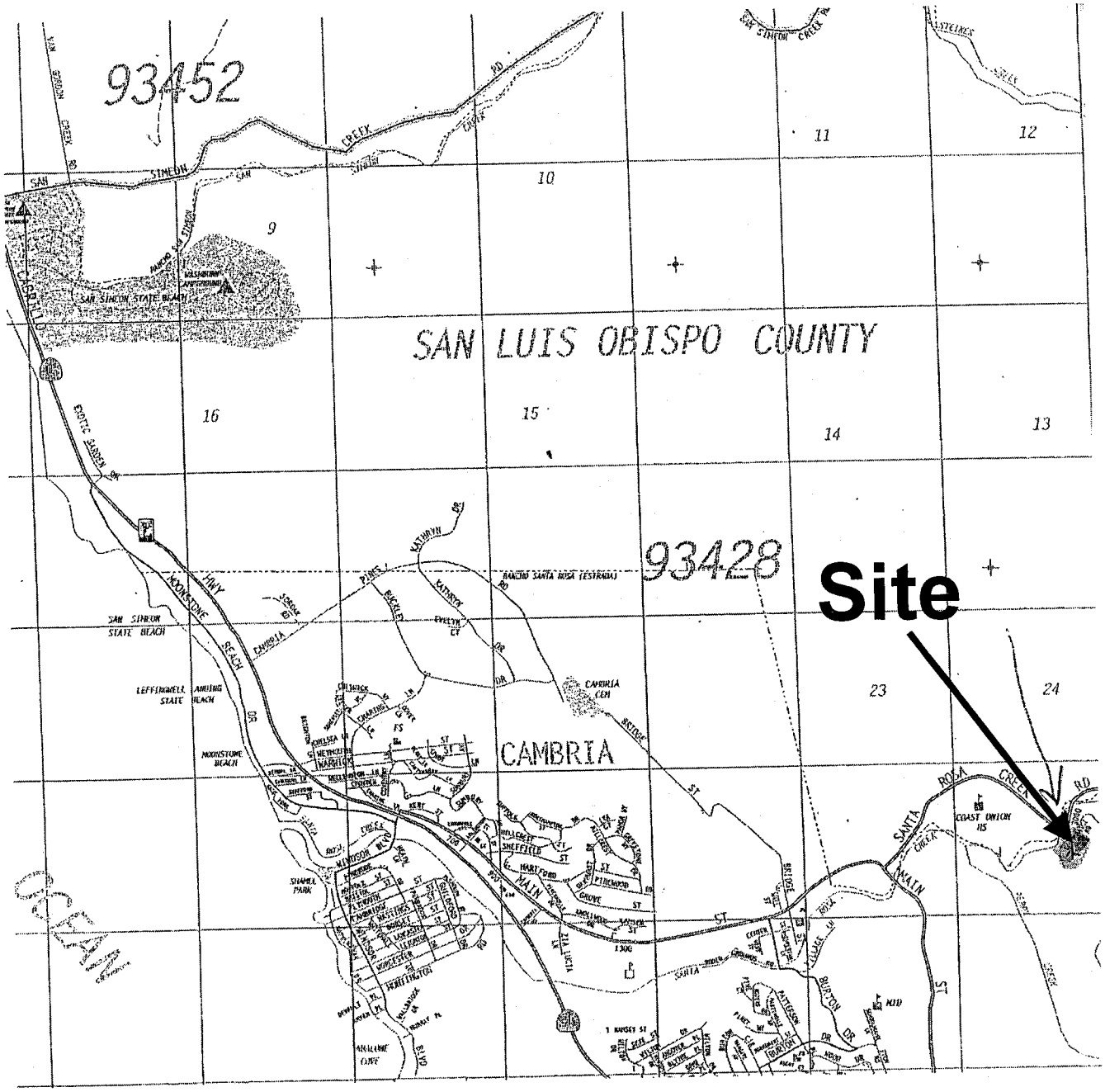
92. **During construction,** construction activities for the proposed project shall be limited to the hours between 7:00 a.m. and 9:00 p.m., in accordance with Section 23.06.040 of the County of San Luis Obispo Coastal Zone Land Use Ordinance.

THE FOLLOWING CONDITIONS SHALL APPLY PRIOR TO FINAL INSPECTION

93. Any disturbed banks shall be fully restored upon completion of construction. Revegetation shall be done using native species. Planting techniques can include seed casting, hydroseeding, or live planting methods using the techniques in Part XI of the *California Salmonid Stream Habitat Restoration Manual.*

94. This permit is valid for a period of 24 months from its effective date unless time extensions are granted pursuant to Land Use Ordinance Section 23.02.050.

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING



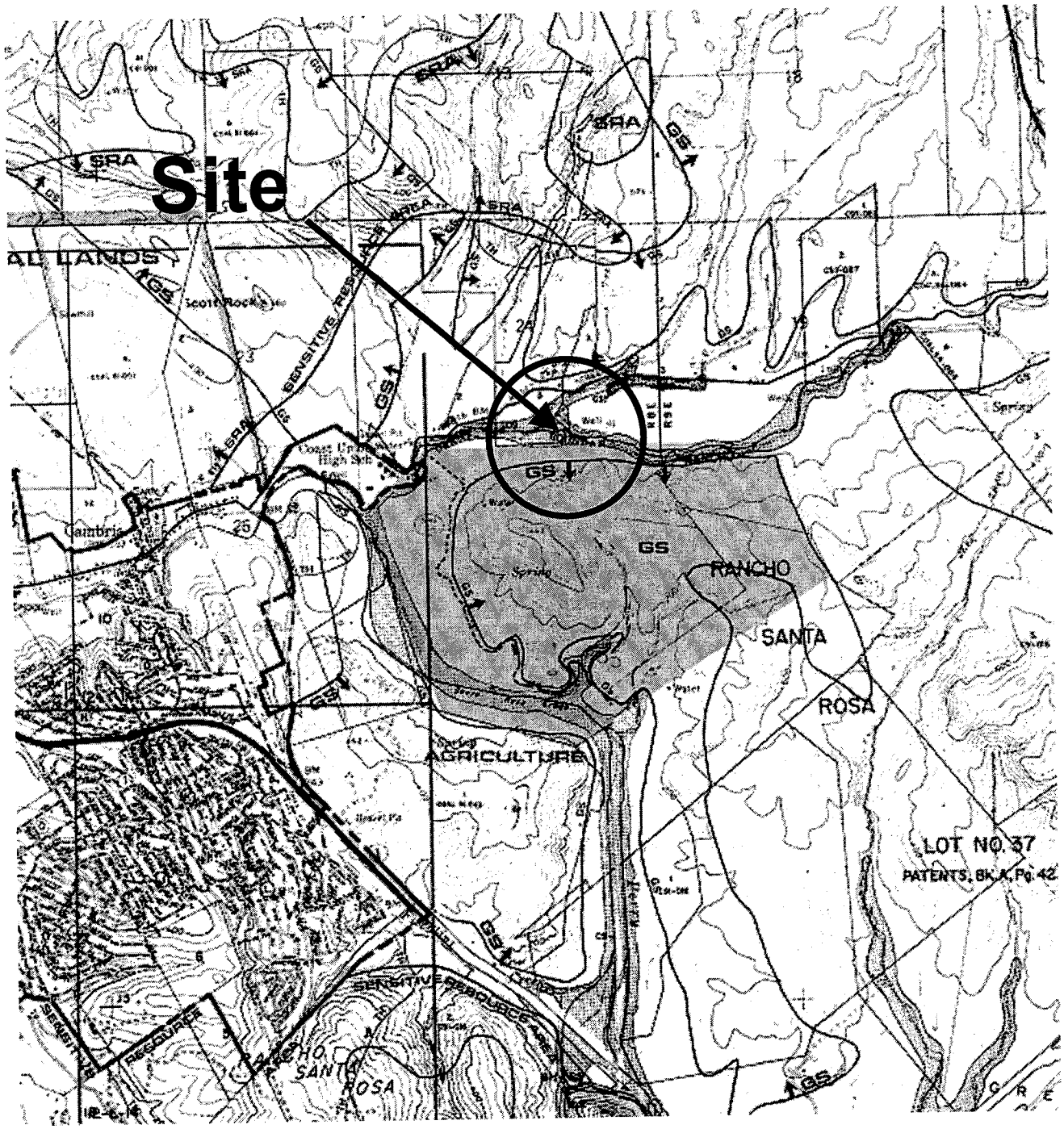
PROJECT

Minor Use Permit
Fiscalini/ DRC2003-00045

EXHIBIT

Vicinity Map

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING



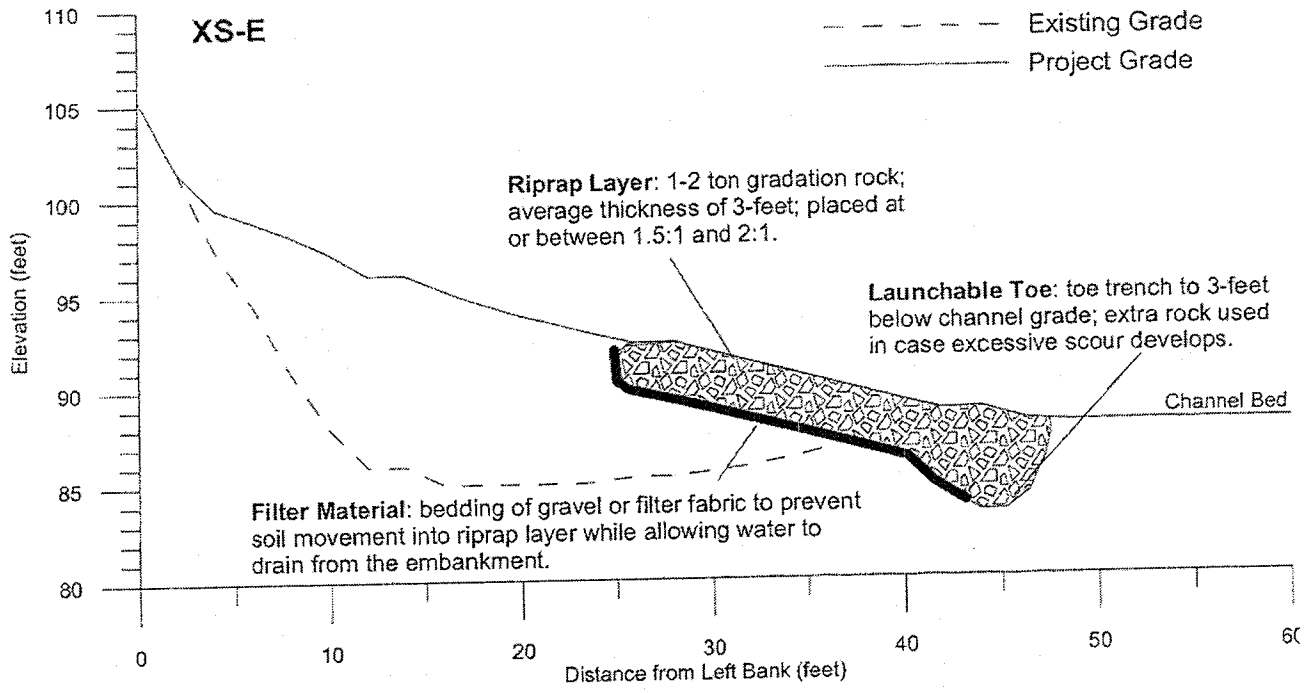
PROJECT

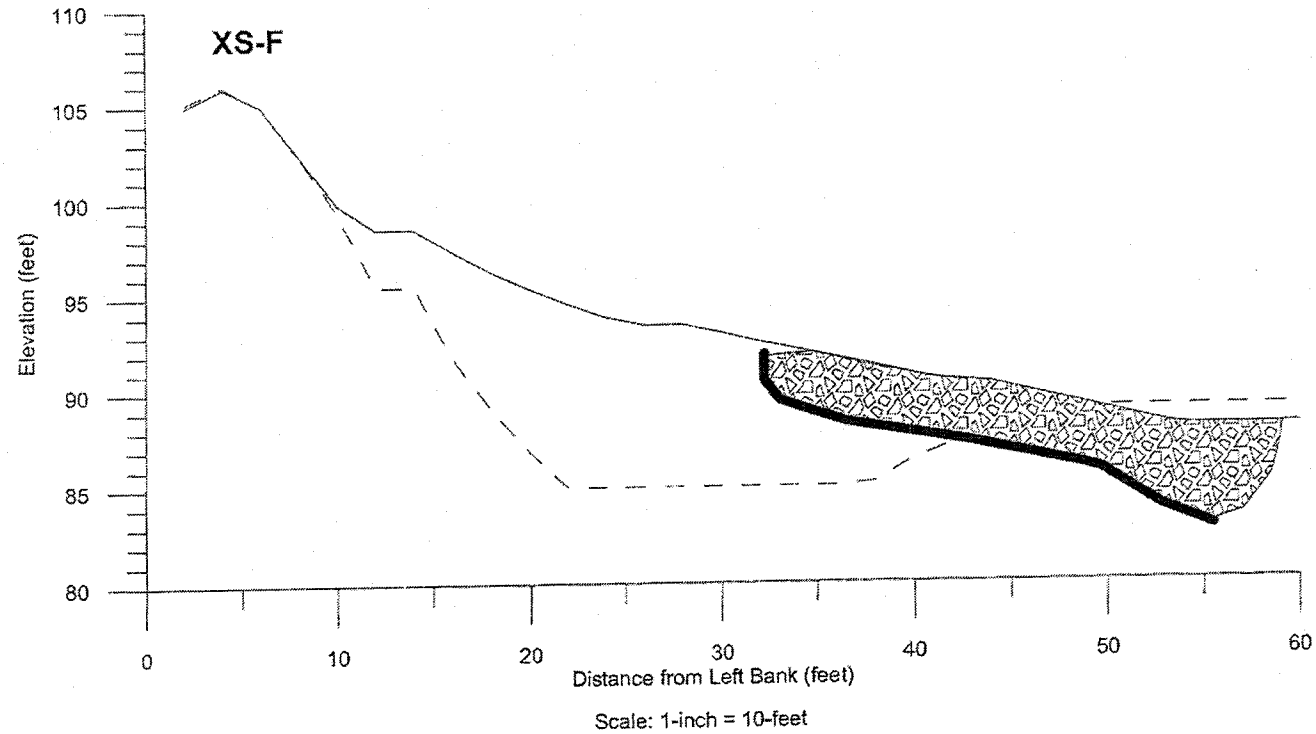
Minor Use Permit
Fiscalini/ DRC2003-00045

EXHIBIT

Land Use Category

Note: See Figure 2 for Cross-Section Locations





Scale: 1-inch = 10-feet

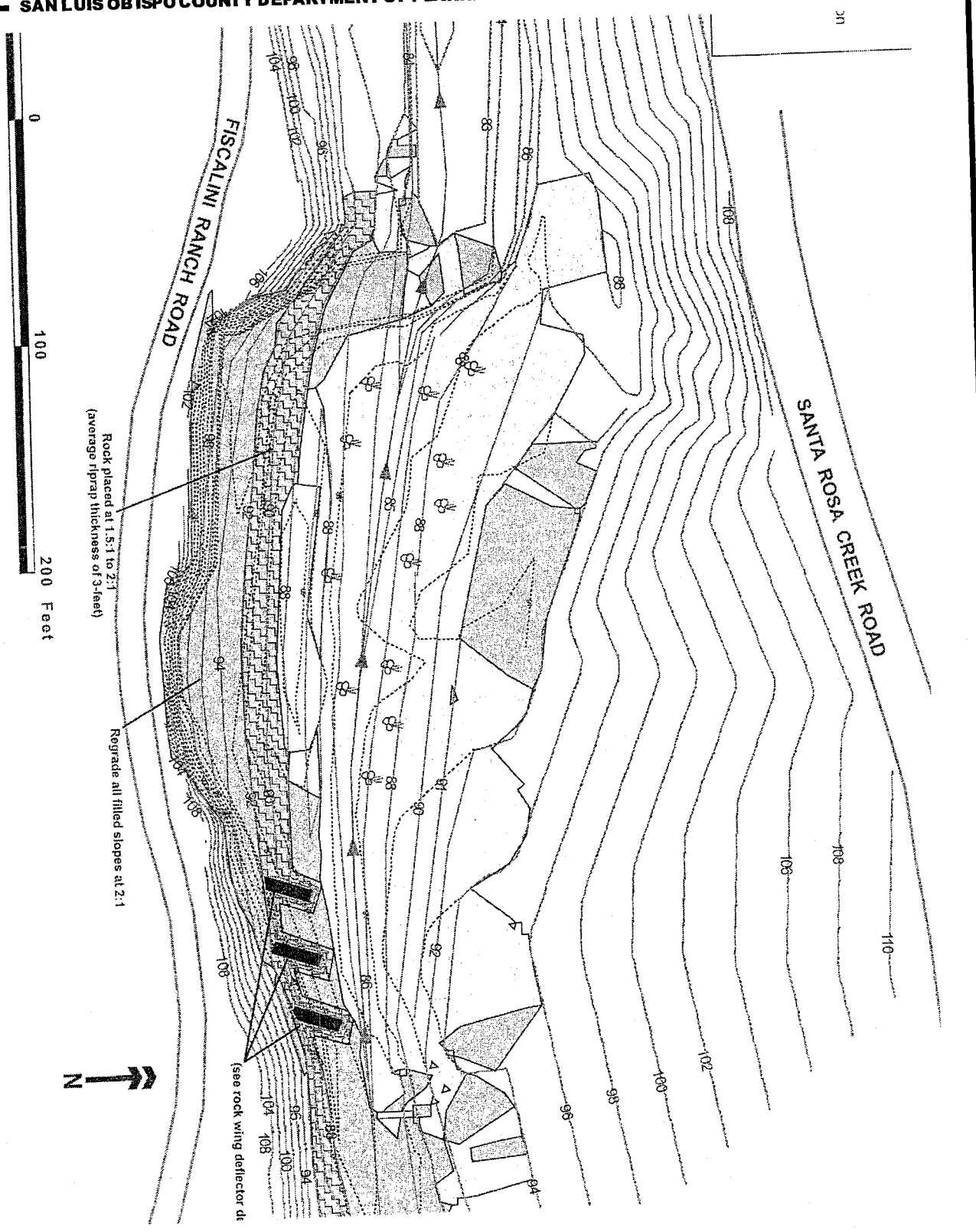
PROJECT

Minor Use Permit
Fiscalini/ DRC2003-00045

EXHIBIT

Rock Slope Protection Design Plan

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING



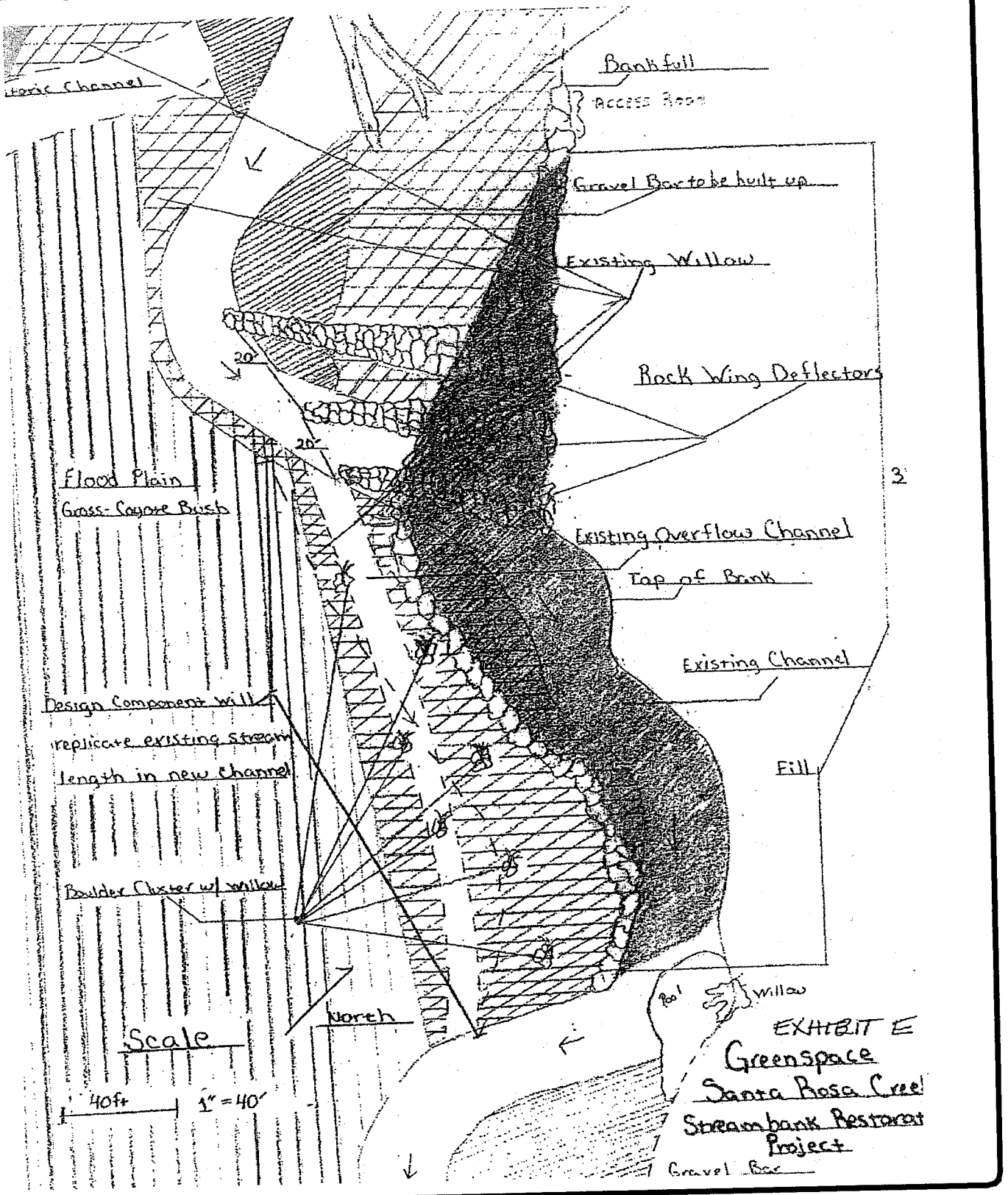
PROJECT

Minor Use Permit
Fiscalini/ DRC2003-00045

EXHIBIT

Site Plan

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING



PROJECT

Minor Use Permit
Fiscalini/ DRC2003-00045

EXHIBIT

Restoration Plan

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING

Project Site

PROJECT

Minor Use Permit
Fiscalini/ DRC2003-00045

EXHIBIT

Aerial Photgraph

S. LUIS OBISPO COUNTY
DEPARTMENT OF PLANNING AND BUILDING

VICTOR HOLANDA, AICP
DIRECTOR

THIS IS A NEW PROJECT REFERRAL

DATE: ~~4/26/04~~ 3/8/05

TO: ~~File Copy~~ F+G

FROM: Coastal Team
(Please direct response to the above)

FISCALINI
MUP DRC2003-00045
Project Name and Number

CAMBRIA
Development Review Section (Phone: 781- 788-2009 Taryn)

PROJECT DESCRIPTION: - stabilize, reconstruct, re-vegetate and improve salmonid habitat in Santa Rosa Creek through the restoration of the specified 350 ft. area of the creek bed. (350 x 30')

Return this letter with your comments attached no later than: 5/7/04

PART I — IS THE ATTACHED INFORMATION ADEQUATE FOR YOU TO DO YOUR REVIEW?

_____ YES (Please go on to Part II)
__X__ NO (Call me ASAP to discuss what else you need. We have only 30 days in which we must accept the project as complete or request additional information.)

PART II — ARE THERE SIGNIFICANT CONCERNS, PROBLEMS OR IMPACTS IN YOUR AREA OF REVIEW?

_____ NO (Please go on to Part III)
__X__ YES (Please describe impacts, along with recommended mitigation measures to reduce the impacts to less-than-significant levels, and attach to this letter.)

PART III — **INDICATE YOUR RECOMMENDATION FOR FINAL ACTION. Please attach any conditions of approval you recommend to be incorporated into the project's approval, or state reasons for recommending denial. IF YOU HAVE "NO COMMENT," PLEASE INDICATE OR CALL.**

Stream flow modelling should be conducted for both upstream and downstream reaches. 1603 permit will be needed. Mike Hill (DFG Fisheries) should be contacted if contact hasn't occurred.

3-9-05
Date

Bob Stafford
Name

528-9670
Phone

7

SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

RECEIVED

APR 21 2004

CAMBRIA COMMUNITY SERVICES DISTRICT

VICTOR HOLANDA, AICP
DIRECTOR

THIS IS A NEW PROJECT REFERRAL

DATE: 4/26/04

TO: Cambria CSD - (Wds) FISCALINI

FROM: Coastal Team MUP DRC2003-00045
(Please direct response to the above) Project Name and Number

CAMBRIA

Development Review Section (Phone: 781- 788-2009 Taryn)

PROJECT DESCRIPTION: - stabilize, reconstruct, re-vegetate and improve salmonid habitat in Santa Rosa Creek through the restoration of the specified 350 ft. area of the creek bed. (350'x 30')

Return this letter with your comments attached no later than: 5/7/04

PART I IS THE ATTACHED INFORMATION ADEQUATE FOR YOU TO DO YOUR REVIEW?

✓ YES (Please go on to Part II)
___ NO (Call me ASAP to discuss what else you need. We have only 30 days in which we must accept the project as complete or request additional information.)

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✓ NO (Please go on to Part III)
___ YES (Please describe impacts, along with recommended mitigation measures to reduce the impacts to less-than-significant levels, and attach to this letter.)

PART III **INDICATE YOUR RECOMMENDATION FOR FINAL ACTION. Please attach any conditions of approval you recommend to be incorporated into the project's approval, or state reasons for recommending denial. IF YOU HAVE "NO COMMENT," PLEASE INDICATE OR CALL.**

No Comment

4/28/04 Date

Jay Harmon Name

927-6225 Phone

Also reviewed by Bryan Bode

North Coast Advisory Council
P. O. Box 533
Cambria, CA 93428

December 7, 2004

Martha Neder, County Planner
Department of Planning and Building
County Government Center
San Luis Obispo, CA 93408

Re: Actions taken at the regular meeting of the North Coast Advisory Council (NCAC) on November 17, 2004

Dear Ms. Neder;

The actions listed below are a result of the regular meeting of the North Coast Advisory Council on November 17, 2004.

The following projects are recommended for approval with no comments:

DRC2004-00045/Fiscalini	Restoration on Santa Rosa Creek
DRC2004-00078/Flamm	SFR

The following project is subject to the following stipulations:

SO20365L/Coal 00-0352 to be approved only if:

1. Meeting all the stipulations listed in the letter dated September 30, 2004
2. All three parcels will remain with agriculture zoning
3. There will be absolutely no zoning changes
4. There will be no commercial enterprises

Yours truly,

Carol Broadhurst

Carol Broadhurst, Corresponding Secretary

cc: Shirley Bianchi, County Supervisor
Victor Holanda, Director Planning and Building
Anne Wyatt, Chairperson NCAC
Bud Goff, Chair Project/Land Use NCAC

GREENSPALL
FISCALINI BANK STABILIZATION | COPY

Form A

Notice of Completion & Environmental Document Transmittal

SCH # ________________

Mail to: State Clearinghouse, PO Box 3044, Sacramento, CA 95812-3044 916/445-0613

Project Title: SB 271 RESTORATION PROJECTS

Lead Agency: CA. DEPT FISH & GAME

Mailing Address: P.O. BOX 47

City: YOUNTVILLE CA. Zip: 94599

Contact Person: BOB SNYDER snyder

Phone: 707-944-5535

County: NAPA

Project Location: (NORTH COAST, CENTRAL COAST ANADROMOUS FISH RESTORATION)

County: VARIOUS

City/Nearest Community: ________________

Cross Streets: ________________ Zip Code: ________ Total Acres: ________

Assessor's Parcel No. ________________ Section: ________ Twp. ________ Range: ________ Base: ________

Within 2 Miles: State Hwy #: ________ Waterways: ________________

Airports: ________ Railways: ________ Schools: ________________

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☑ Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other ________

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other ________

RECEIVED
MAY 18 2004
STATE CLEARING HOUSE

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan

☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan

☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)

☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other ________

Development Type:

☐ Residential: *Units* ______ *Acres* ______

☐ Office: *Sq.ft.* ______ *Acres* ______ *Employees* ______

☐ Commercial: *Sq.ft.* ______ *Acres* ______ *Employees* ______

☐ Industrial: *Sq.ft.* ______ *Acres* ______ *Employees* ______

☐ Educational ________________

☐ Recreational ________________

☐ Water Facilities: *Type* ________ *MGD* ______

☐ Transportation: *Type* ________

☐ Mining: *Mineral* ________

☐ Power: *Type* ________ *Watts* ______

☐ Waste Treatment: *Type* ________

☐ Hazardous Waste: *Type* ________

☐ Other: FISHERIES RESTORATION

Funding (approx.): Federal $________ State $________ Total $________

Project Issues Discussed in Document: ALL RELATED TO NEG. DEC.

☐ Aesthetic/Visual ☐ Agricultural Land ☐ Air Quality ☐ Archeological/Historical ☐ Coastal Zone ☐ Drainage/Absorption ☐ Economic/Jobs ☐ Fiscal

☐ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☐ Geologic/Seismic ☐ Minerals ☐ Noise ☐ Population/Housing Balance ☐ Public Services/Facilities ☐ Recreation/Parks

☐ Schools/Universities ☐ Septic Systems ☐ Sewer Capacity ☐ Soil Erosion/Compaction/Grading ☐ Solid Waste ☐ Toxic/Hazardous ☐ Traffic/Circulation ☐ Vegetation

☐ Water Quality ☐ Water Supply/Groundwater ☐ Wetland/Riparian ☐ Wildlife ☐ Growth Inducing ☐ Landuse ☐ Cumulative Effects ☐ Other ________

Present Land Use/Zoning/General Plan Designation:

Project Description:

SB271 FISH RESTORATION PROJECT IN NORTH COAST AND CENTRAL COAST REGIONS / CA. DEPT OF FISH AND GAME

Reviewing Agencies Checklist

Form A, continued

KEY
S = Document sent by lead agency
X = Document sent by SCH
✓ = Suggested distribution

Resources Agency
_____Boating & Waterways
_____Coastal Commission
_____Coastal Conservancy
_____Colorado River Board
_____Conservation
_____Fish & Game
_____Forestry & Fire Protection
_____Office of Historic Preservation
_____Parks & Recreation
_____Reclamation Board
_____S.F. Bay Conservation & Development Commission
_____Water Resources (DWR)

Business, Transportation & Housing
_____Aeronautics
_____California Highway Patrol
_____CALTRANS District #_____
_____Department of Transportation Planning (headquarters)
_____Housing & Community Development

_____**Food & Agriculture**

Health & Welfare
_____Health Services _____

State & Consumer Services
_____General Services
_____OLA (Schools)

Environmental Protection Agency
_____Air Resources Board
_____California Waste Management Board
_____SWRCB: Clean Water Grants
_____SWRCB: Delta Unit
_____SWRCB: Water Quality
_____SWRCB: Water Rights
_____Regional WQCB #_____ (_____)

Youth & Adult Corrections
_____Corrections

Independent Commissions & Offices
_____Energy Commission
_____Native American Heritage Commission
_____Public Utilities Commission
_____Santa Monica Mountains Conservancy
_____State Lands Commission
_____Tahoe Regional Planning Agency

_____Other _____

Public Review Period (to be filled in by lead agency)

Starting Date _____ Ending Date _____

Signature _____ Date _____

Lead Agency (Complete if applicable):

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: (_____) _____

For SCH Use Only:

Date Received at SCH _____
Date Review Starts _____
Date to Agencies _____
Date to SCH _____
Clearance Date _____
Notes:

Applicant: CA. DEPT OF FISH AND GAME
Address: P.O. BOX 47
City/State/Zip: YOUNTVILLE, CA 94599
Phone: (707) 944-5535 (1535)

State Water Resources Control Board

Executive Office
1001 I Street • Sacramento, California 95814 • (916) 341-5615
Mailing Address: P.O. Box 100 • Sacramento, California • 95812-0100
Fax (916) 341-5621 • http://www.swrcb.ca.gov

Terry Tamminen
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

SEP 3 2004

Mr. Larry Week, Chief
Native Anadromous Fish and Watershed Branch
Department of Fish and Game
830 S Street
Sacramento, CA 95814

Dear Mr. Week:

ORDER FOR TECHNICALLY CONDITIONED WATER QUALITY CERTIFICATION (CERTIFICATION): CALIFORNIA DEPARTMENT OF FISH AND GAME, 2003 AND 2004 FISHERIES RESTORATION GRANTS PROGRAM (CORPS SAN FRANCISCO DISTRICT FILE #223232N; CORPS LOS ANGELES DISTRICT FILE #200301123)

This Certification responds to your June 14, 2004 letter requesting reactivation of the Department of Fish and Game's (DFG) application for Clean Water Act (CWA) section 401 Water Quality Certification for the 2003 and 2004 Fisheries Restoration Grant Program (FRGP). The FRGP funds projects to restore anadromous fisheries habitat in non-tidal reaches of rivers and streams, improve watershed conditions impacting salmonid streams, and otherwise improve the survival, growth, migration, and reproduction of anadromous fish. The FRGP is described further in Enclosure 1. This Certification authorizes the one hundred fifty-five (155) restoration projects funded through FRGP's 2003 and 2004 grant cycles, as listed in Enclosure 2 to this Certification. Only restoration projects consistent with DFG's *"California Salmonid Stream Habitat Restoration Manual"* (3rd Edition, January 1998) are funded by the grant program. The FRGP area is mapped in Enclosure 3. Future FRGP projects that have not yet been subject to environmental analysis pursuant to the California Environmental Quality Act (CEQA) will require separate Certification or amendment of this Certification. This Certification applies to discharges to waters of the United States which are permitted by the U.S. Army Corps of Engineers. Other activities are subject to the provisions of California Water Code section 13260, requiring that a report of waste discharge be filed with the appropriate Regional Water Quality Control Board (RWQCB) for any discharge that could affect the quality of waters of the State.

DFG submitted an application for Certification on August 26, 2003 but withdrew that application on September 23, 2003 in order to address new information. The application was resubmitted June 14, 2004 with an initial list of projects and information specific to projects in streams with historical mining. A revised list of 155 projects was submitted for certification on August 8, 2004, and five projects were identified as located in areas with historical mining. Information submitted with the list indicates that three of the projects located in the mining areas have a low probability of mercury remobilization and that more information is needed to determine the probability of mercury remobilization for two of the projects.

The National Marine Fisheries Service issued a Biological Opinion (BO) for the FRGP on May 21, 2004. The U.S. Fish and Wildlife Service (USFWS) Arcata Office stipulated a "no effect" determination in a February 25, 2004 letter. The Ventura and Sacramento USFWS Offices issued their respective BOs on August 13, 2004 and August 17, 2004.

☐ Order for Standard Certification

☐ Order for Denial of Certification

☒ Order for Technically Conditioned Certification

☐ Order for Waiver of Waste Discharge Requirements

STANDARD CONDITIONS:

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and Article 6 (commencing with section 3867) of Chapter 28, Title 23 of the California Code of Regulations (CCR 23).

2. This certification action is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to subsection 3855(b) of Chapter 28, CCR 23, and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. This Certification is conditioned upon total payment of any fee required under Chapter 28, CCR 23 and owed by the applicant.

ADDITIONAL CONDITIONS:

1. **Endangered Species:** Projects proceeding under the FRGP shall not result in the take of any endangered, threatened, or candidate species or the habitat of such species except as authorized pursuant to the State and federal Endangered Species Acts.

2. **Other State Permits:** All projects shall comply with all applicable National Pollutant Discharge Elimination System permits and Waste Discharge Requirements.

3. **Toxic Substances:** Projects shall not discharge substances in concentrations toxic to human, plant, animal, or aquatic life or that produce detrimental physiological responses.

4. **Hazardous Substances:** Projects shall not discharge waste classified as "hazardous" as defined in Title 22 CCR section 66261 and California Water Code section 13173.

5. **Notification:** Not less than 15 days prior to the start of construction, or 30 days for projects involving the placement of any new culvert or channel liner as described in Condition No. 6

(Culverts and Channel Lining), project proponents shall submit to the 401 Program Manager of the appropriate RWQCB(s) a notification indicating the expected start and completion dates of project activities (see addresses under Condition 7 below).

6. **Culverts and Channel Lining**: This Certification does not apply to any project which includes the placement of any culvert or channel lining in any water body reach that previously had none, unless the project has been approved by the Executive Officer of the appropriate RWQCB(s). Such project will be identified by DFG in the notification submitted to the RWQCB as required in Condition Number 5 (Notification) above. If the Executive Officer has not disapproved the project within 30 days of receipt of DFG's notification, the project may proceed under this Certification.

7. **Reporting**: While this Certification is in effect, or until all projects have been completed or de-funded, and for as long as required monitoring is occurring, DFG will submit annual reports on July 1 of each year to the 401 Program Managers of the State Water Resources Control Board (SWRCB) and the appropriate RWQCB(s), documenting work undertaken during the preceding year, and identifying for all such work the following:

   a. project name and grant number as listed in Enclosure 2;
   b. project purpose and summary work description;
   c. name(s) of affected water body(ies);
   d. latitude/longitude in decimal degrees to at least four decimals;
   e. type(s) of receiving water body(ies) (e.g., at a minimum: river/streambed, lake/reservoirs, ocean/estuary/bay, riparian area, or wetland type);
   f. for each water body type affected, the quantity of waters of the U.S. temporarily and permanently impacted. Fill/excavation discharges shall be reported in acres and fill/excavation discharges for channels, shorelines, riparian corridors, and other linear habitat shall also be reported in linear feet;
   g. actual construction start and end-dates; and
   h. whether the project is on-going or completed. For multi-year projects completed during the year, the Annual Report will document impacts (per item "f" of this condition) for that year and will also report the total multi-year impacts of the overall project.

   Notifications and Annual Reports shall be directed to "Program Manager, 401 Water Quality Certification Program" at the SWRCB and the appropriate RWQCB offices, at the letterhead and following addresses respectively:

North Coast Regional Water Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

San Francisco Bay Regional Water Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Central Coast Regional Water Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Los Angeles Regional Water Board
320 W. Street, Suite 200
Los Angeles, CA 90013

Santa Ana Regional Water Board
3737 Main Street, Suite 500
Riverside, CA 92501-3339

San Diego Regional Water Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

8. **Imported Gravel:** Any gravel imported from offsite will be from a source known to not contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings.

9. **Projects in Streams with Historical Mining:** For projects in basins with historical mining activity (e.g., Walker Creek, East Fork Scott River, Scott River, Cottonwood Creek, and Kelly Gulch) that will disturb the channel bottom, and specifically for projects No. 145 (Kelly Gulch Migration Barrier Removal Project/Grant #P0210441) and No. 154 (Cottonwood Creek Diversion Improvement Program/Grant #P0210436) pre- and post-project testing for mercury in the tissue of macro-invertebrates in the area shall be done. This testing will consist of:

   a. Prior to project implementation, a mercury bioassessment of macro-invertebrates expressed as total mercury in mg/g of macro-invertebrates tissue will be done. Macro-invertebrate samples will be collected directly upstream and downstream of the project site, in accordance with methods described in the December 2003 *California Stream Bio-assessment Procedure* and the May 7, 2003 laboratory protocol entitled *Mercury in Tissue* (FIMS Mercury Rev. 3), both attached to DFG's June 14, 2004, 401 Application.

   b. The results of the pre-project mercury bioassessment will be reported to the appropriate RWQCB(s) at least 30 days prior to project initiation. If mercury is detected, the project may proceed only with RWQCB concurrence. If the Executive Officer has not disapproved the project within 30 days of receipt of DFG's report, the project may proceed under this Certification.

   c. Immediately following implementation of the project, and for one additional season thereafter (i.e., two sampling events), complementary mercury bioassessment of macro-invertebrates (total mercury/mg) will be done directly upstream and downstream of the project site. The results of the post-project monitoring will be reported in DFG's Annual Reports.

10. **Enforcement:** In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State law. For purposes of CWA section 401(d), the applicability of any State law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

    a. In response to a suspected violation of any condition of this Certification, the SWRCB may require the holder of any permit or license subject to this Certification to furnish, under penalty of perjury, any technical or monitoring reports the SWRCB deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

b. In response to any violation of the conditions of this Certification, the SWRCB may add to or modify the conditions of this Certification as appropriate to ensure compliance.

Expiration: This Certification will expire on December 31, 2009.

WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that discharges from the projects listed in Enclosure 2 comply with the applicable provisions of sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the CWA, and with other applicable requirements of State law. This discharge is also regulated under State Board Order No. 2003-0017-DWQ "General Waste Discharge Requirements for Dredged or Fill Discharges That Have Received State Water Quality Certification" (GWDR), which requires compliance with all conditions of this Water Quality Certification. This GWDR can be accessed at http://www.swrcb.ca.gov/cwa401/index.html.

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in compliance with the applicants' project description and the enclosed Project Information Sheet (Enclosure 1), and (b) compliance with all applicable requirements of the appropriate RWQCB's Water Quality Control Plan.

If you have any questions, please direct them to Ruben A. Guieb, Environmental Scientist, Water Quality Certification Unit, at 916-341-5464 or email guier@swrcb.ca.gov. You may also contact Oscar Balaguer, Chief of the Water Quality Certification Unit, at 916-341-5485 or email balao@swrcb.ca.gov.

Sincerely,

Tom Howard for

Celeste Cantú
Executive Director

Enclosures (3)

cc: Mr. Tim Vendlinski
Wetlands Regulatory Office (WTR-8)
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

cc: (Continued on next page)

cc: (Continuation page)

Mr. Mark D' Avignon
Regulatory Branch
San Francisco District
Department of the Army
U.S. Army Corps of Engineers
333 Market Street
San Francisco, CA 94105

Mr. Bruce Henderson
Ventura Field Office
Regulatory Branch
Los Angeles District
Department of the Army
U.S. Army Corps of Engineers
2151 Alessandro Drive, Suite 255
Ventura, CA 93001

Ms. Cecilia Brown
Sacramento Field Office
Endangered Species Division
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

Mr. David Pereksta
Ventura Office
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003

Mr. Rodney R. McInnis
Santa Rosa Area Office
National Marine Fisheries Service
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

Mr. Rick Rogers
National Marine Fisheries Service
1655 Heindon Road
Arcata, CA 95521

cc: (Continued on next page)

cc: (Continuation page)

Ms. Gail Newton
Native Anadromous Fish and Watershed Branch
Department of Fish and Game
830 S Street
Sacramento, CA 95814

Ms. Helen Birss
Native Anadromous Fish and Watershed Branch
Department of Fish and Game
830 S Street
Sacramento, CA 95814

Mr. Bob Coey
Watershed Restoration Program, CCR
Department of Fish and Game
P. O. Box 47
Yountville, CA 94599

Executive Officers, RWQCBs 1, 2, 3, 4, 8, and 9

ENCLOSURE 1

PROJECT INFORMATION SHEET

CALIFORNIA DEPARTMENT OF FISH AND GAME
2004 FISHERIES RESTORATION GRANTS PROGRAM

1.	Applicant & Agent	Mr. Larry Week Native Anadromous Fish and Watershed Branch Department of Fish and Game 830 S Street, Sacramento, CA 95814 DFG Contact Person: Ms. Helen Birss Native Anadromous Fish and Watershed Branch Department of Fish and Game 830 S Street, Sacramento, CA 95814
2.	Project Purpose and Description	**Title:** ORDER FOR TECHNICALLY-CONDITIONED WATER QUALITY CERTIFICATION: CALIFORNIA DEPARTMENT OF FISH AND GAME FISHERIES RESTORATION GRANTS PROGRAM (CORPS SAN FRANCISCO DISTRICT FILE #223232N AND CORPS LOS ANGELES DISTRICT FILE #200301123) **Purpose:** The purpose of the Fisheries Restoration Grant Program (FRGP) is to restore anadromous fisheries habitat in non-tidal reaches of rivers and streams, improve watershed conditions impacting salmonid streams, and improve the survival, growth, migration, and reproduction of anadromous fish. **Description:** The California Department of Fish and Game (DFG), through FRGP, uses funds mandated under Public Resources Codes section 6217 to fund projects that will restore degraded anadromous/salmonid fish habitats in coastal streams. Enclosure 2 identifies the 155 restoration projects reviewed under FRGP's 2003 and 2004 Mitigated Negative Declarations and covered by this Certification, and Enclosure 3 shows the statewide coastal coverage of FRGP. These 155 projects have been determined by DFG to be consistent with DFG's *"California Salmonid Stream Habitat Restoration Manual"* (3rd Edition, January 1998). Only restoration projects consistent with the manual's guidelines are funded by the grant program.
3.	Receiving Water(s) Name	See enclosed Enclosure 2.
4.	Water Body Types/ Area of Filled/ Excavated (Acres)	Not applicable. However, through the "Notification" process, project-specific identification for this section will be provided by the project proponent proceeding under this Certification.
5.	Federal Permit(s)	**U. S. Army Corps of Engineers (Regional General Permits):** • San Francisco District Regional - Corps File Number 223232N • Los Angeles District - Corps File Number 200301123 **Biological Opinion:** • National Marine Fisheries Service (File #151422SWR03AR8912:FRR/JTJ) • U. S. Fish and Wildlife Service Offices: Arcata (File # AFWO 1-14-2004-2129) Sacramento (File #1-1-03-F-273) Ventura (File #1-8-03-F/C-49)
6.	Non-Compensatory Mitigation	DFG will implement the mitigation measures identified in Appendix B of the FRGP's 2003 and 2004 Mitigated Negative Declarations and those identified in DFG's June 14, 2004 401 application, Section 11, *Other Actions/Best Management Practices.*
7.	Compensatory Mitigation	Not applicable.
8.	Additional Information	California Environmental Quality Act: Lead Agency – DFG. 2003 Mitigated Negative Declaration (SCH #2003042032); 2004 Mitigated Negative Declaration (SCH #2004052087).

Grantspace Fisheries see BO

DEPARTMENT OF THE ARMY REGIONAL GENERAL PERMIT FOR THE CALIFORNIA DEPARTMENT OF FISH AND GAME'S FISHERIES RESTORATION GRANT PROGRAM

PERMITTEE: California Department of Fish and Game

REGIONAL GENERAL PERMIT NO. 12 (RGP 12) (Corps File No.: 27922N)

ISSUING OFFICE: San Francisco District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate District or Division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below:

PROJECT DESCRIPTION: This Regional General Permit authorizes minor fill discharges of clean earth, gravel, rock, and wood associated with anadromous salmonid habitat restoration projects implemented under the **California Department of Fish and Game's Fisheries Restoration Grant Program** strictly for the purpose of restoring salmonid fisheries habitat in non-tidal reaches of rivers and streams, improving watershed conditions impacting salmonid streams, and improving the survival, growth, migration, and reproduction of native salmonids. All authorized salmonid habitat restoration projects must conform to State law and be implemented consistent with the *California Salmonid Stream Habitat Restoration Manual*, (Flosi et al., 1998). **(Note: This Regional General Permit applies only to salmonid habitat restoration projects that are specifically funded and/or authorized under the California Department of Fish and Game's Fisheries Restoration Grant Program.)** The following is a descriptive list of the activities authorized under this Regional General Permit.

a. Instream habitat improvements: These may include cover structures (divide logs; digger logs; spider logs; and log, root wad and boulder combinations), boulder structures (boulder weirs; vortex boulder weirs; boulder clusters; and single and opposing boulder wing-deflectors), and log structures (log weirs; upsurge weirs; single and opposing log wing-deflectors; and Hewitt ramps). Techniques and practices are identified in Part VII of the *California Salmonid Stream Habitat Restoration Manual*. Techniques for placement of imported spawning gravel are identified on page VII-46 of the *California Salmonid Stream Habitat Restoration Manual*.

b. Unanchored large woody debris: Woody debris may be used to enhance pool formation and improve stream reaches. First through third order streams are generally best suited. Logs selected for placement should have a minimum diameter of 12 inches and a minimum length 1.5

times the mean bankfull width of the stream channel type reach and the deployment site. Root wads would be selected with care and have a minimum root bole diameter of five feet and a minimum length of fifteen feet and at least half the channel type bankfull width. More information can be found on page VII-23 of the *California Salmonid Stream Habitat Restoration Manual.*

c. Fish screens: Screens would be used to prevent entrainment of juvenile salmonids in water diverted for agriculture, power generation, or domestic use, and are needed on both gravity flow and pump diversion systems. Guidelines for functional designs of downstream migrant fish passage facilities at water withdrawal projects are found in Appendix S of the *California Salmonid Stream Habitat Restoration Manual.* The appendix of the manual covers structure placement, approach velocity, sweeping velocity, screen openings, and screen construction.

d. Fish passage at stream crossings: Stream crossing projects include activities that provide fish friendly crossings where the crossing width is at least as wide as the active channel, culvert passes are designed to withstand a 100 year storm flow, and crossing bottoms are buried below the streambed. Examples include replacement of barrier stream crossings with bridges, bottomless arch culverts, embedded culverts, or fords. Guidelines for fish passage practices are covered in Part IX of the *California Salmonid Stream Habitat Restoration Manual.* Baffled culvert (Washington baffles and steel ramp baffles), fishways (step and pool, Denil fishway, Alaskan steep pass and back-flooding weirs), and fish ladders are described in Part VII.

e. Fish passage improvements: These activities would include removal of obstructions (log jams, beaver dams, waterfalls and chutes and landslides. Suitable large woody debris removed from fish passage barriers that is not used by the project for habitat enhancement shall be left within the riparian zone so as to provide a source for future recruitment of wood into the stream. Log jam barriers are typically less than 10 cubic yards. Guidelines for fish passage improvements are covered in Part VII of the *California Salmonid Stream Habitat Restoration Manual.*

f. Upslope restoration: These activities reduce sediment delivery to anadromous streams including road decommissioning, road upgrading, and storm proofing roads (replacing high risk culverts with bridges, installing culverts to withstand the 100 year flood flow, installing critical dips, installing armored crossings, and removing unstable sidecast and fill materials from steep slopes.). Guidelines for upslope restoration practices are covered in Part X of the *California Salmonid Stream Habitat Restoration Manual.*

g. Watershed and stream bank stability activities: These activities would reduce sediment from watershed and stream bank erosion. Examples include slide stabilization, stream bank stabilization, boulder stream bank stabilization structures, log stream bank stabilization structures, tree revetment, native material revetment, mulching, revegetation, willow wall revetment, brush mattress, checkdams, brush checkdams, waterbars, exclusionary fencing. Guidelines for watershed and streambank stability are covered in Part VII of the *California Salmonid Stream Habitat Restoration Manual.*

h. Riparian habitat restoration: These activities would increase the biological integrity of native plant communities in riparian zones along rivers and streams. These activities would include natural regeneration or riparian vegetation, livestock exclusionary fencing, bioengineering, and active riparian revegetation projects carried out in accordance with the guidelines described in Part XI of the *California Salmonid Stream Habitat Restoration Manual.*

All authorized habitat improvement projects shall be carried out in accordance with techniques in the *California Salmonid Stream Habitat Restoration Manual* as depicted in the attached project drawings entitled, "Project Name: Fisheries Restoration Grant Program, Project Location: San Francisco District, Applicant: Department of Fish and Game" in 36 sheets dated June 6, 2003.

PROJECT LOCATION: This Regional General Permit applies to Fisheries Restoration Grant Program sponsored and approved salmonid habitat enhancement projects in various streams and rivers, including all designated National Wild and Scenic Rivers and their tributaries, in the following coastal California Counties which are within the Regulatory jurisdictional boundaries of the San Francisco District Office: Alameda, Contra Costa, Del Norte, Humboldt, Marin, Mendocino, Monterey, Napa, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Siskiyou, Solano, Sonoma, and Trinity.

PERMIT CONDITIONS:

GENERAL CONDITIONS:

1. The time limit for completing the work authorized ends on **December 1, 2009**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

5. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

6. You understand and agree that, if future operations by the United States require the removal, relocation or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

SPECIAL CONDITIONS:

1. This Corps permit does not authorize you to take an endangered species. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit or a Biological Opinion (BO) under ESA Section 7 with "incidental take" provisions with which you must comply). The enclosed U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) BOs dated May 21, 2004 and August 13 and 17, 2004 respectively contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BOs. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take authorized by the attached BOs, whose terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BOs, where a take of the listed species occurs, would constitute an unauthorized take and it would also constitute non-compliance with this Corps permit. The FWS and NMFS are the appropriate authorities to determine compliance with the terms and conditions of their BOs and with the ESA. **(Note: The FWS BO from the Sacramento Field Office dated August 17, 2004 does not address effects on the San Francisco garter snake *(Thamnophis sirtalis tetratenia)*, therefore projects that may affect this species are not covered under this RGP and would require separate consultation pursuant to Section 7 of the Endangered Species Act of 1973, as amended.)**

2. To avoid impacts to aquatic habitat the activities undertaken in the restoration program shall typically occur during the summer dry season. This is generally between July 1 and November 1 or the first rainfall.

3. Location of staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high water channel and associated riparian area. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action. To avoid

contamination of habitat during restoration activities, trash will be contained, removed, and disposed of throughout the project.

4. Any equipment work within the stream channel shall be performed in isolation from the flowing stream. If there is any flow when the work is done, the contractor shall construct cofferdams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam.

5. If it is necessary to divert flow around the work site, either by pumping or by gravity flow, the suction end of the intake pipe shall be fitted with fish screens meeting Department of Fish and Game and National Marine Fisheries Service criteria to prevent entrainment or impingement of small fish. Any turbid water pumped from the work site itself to maintain it in a dewatered state shall be disposed of in an upland location where it will not drain directly into any stream channel.

6. For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place immediately downstream of the work site to capture suspended sediment.

7. The spread or introduction of invasive exotic plants will be avoided to the maximum extent possible.

8. Wildlife encountered during the course of construction, will be allowed to leave the construction area unharmed.

9. Work sites containing western pond turtles, foothill yellow-legged frogs or tailed frogs will use exclusion measures to prevent take or injury to any individual pond turtles or frogs that could occur on the site. Any red tree vole nests encountered at a work site will be flagged and avoided during construction.

10. Ground-disturbance that has the potential to affect cultural resources will be avoided through implementation of mitigation measures, including completing cultural resource surveys, fencing, on-site monitoring, and redesigning proposed work to avoid disturbance of cultural resources.

11. Impacts to riparian and wetland vegetation shall be avoided to the maximum extent possible, and shall be restored and enhanced with native vegetation when adverse impacts are unavoidable.

12. For salmonid restoration projects that would be constructed within the coastal zone, the permittee shall obtain a concurrence from the California Coastal Commission that the project is consistent with the State's certified Coastal Zone Management Program. The permittee shall contact the appropriate California Coastal Commission office to determine the need for a coastal zone permit prior to conducting any work in the coastal zone. Projects occurring in the coastal zone in the San Francisco Bay region must be permitted by the San Francisco Bay Conservation and Development Commission (BCDC).

13. The permittee shall submit to the District Engineer an annual report(s) of the permitted salmonid restoration projects described above at least 90 days prior to the commencement of work each calendar year. The submitted report(s) shall include the types of activities planned, anticipated dates of commencement, and completion, location, and a brief description of the proposed projects. Copies of the annual report(s) shall be provided to the U. S. Fish and Wildlife Service, and the U. S. National Marine Fisheries Service in accordance with the BO requirements.

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 404 of the Clean Water Act (33 U.S.C. § 1344).
(X) Section 10 of the Rivers and Harbors Act (33 U.S.C. § 403)

2. Limits of this authorization:

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate. (See Item 4 above.)

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Original Signed for Colonel Feir — September 9, 2004

Calvin C. Fong, Chief — (DATE)
Regulatory Branch for
Philip T. Feir
Lieutenant Colonel, U.S. Army, District Engineer

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404-6528

August 27, 2004

In Response Refer to:
151422SWR03AR8912:JTJ/FRR

Mr. Larry Week
California Department of Fish and Game
Native Anadromous Fish and Watershed Branch
830 'S' Street
Sacramento, California 95814

SEP 1 - 2004

Dear Mr. Week:

The National Marine Fisheries Service (NOAA Fisheries) has received your letter of July 27, 2004, containing the California Department of Fish and Game's (CDFG) comments on the May 21, 2004, biological opinion for the U.S. Army Corps of Engineers (Corps) issuance of a Regional General Permit (RGP) to CDFG pursuant to section 404 of the Clean Water Act. The function of the RGP is to authorize the placement of fill material into the waters of the United States for the purpose of restoring anadromous fisheries habitat in non-tidal reaches of rivers and streams within the San Francisco Corps District. NOAA Fisheries is writing this letter to respond to issues raised in your letter and to clarify how CDFG can proceed to implement the RGP.

The first seven comments relate to the *Description of the Proposed Action* section of the biological opinion. This section was based on Corps Public Notice Number 27922N dated June 25, 2003, the *California Salmonid Stream Habitat Restoration Manual* (CDFG Manual). Subsequent submissions from CDFG and discussions with the Corps, CDFG, and the United States Fish and Wildlife Service (USFWS) are also incorporated. The remaining nine comments are related to the nondiscretionary Terms and Conditions of the Incidental Take Statement.

The following are NOAA Fisheries' responses to CDFG's comments, which are provided in the same order as in your letter.

1. CDFG requests that Adaptive Watershed Management funded (Adaptive funded) projects and non-funded projects be included in the RGP.

NOAA Fisheries does not object to including these projects in the RGP, provided that NOAA Fisheries is included in the review process for these projects as described below.

On August 3, 2004, CDFG submitted the list of projects for authorization through the RGP and implemented this 2004 field season as required in term and condition 5(a) of the May 21, 2004, biological opinion. This list included CDFG funded, Adaptive funded, and non-funded projects. Adaptive funded projects are funded by CDFG through the grant program, but they do not undergo the same review process as the regular funded projects. CDFG has assured NOAA Fisheries that NOAA Fisheries will be added into the review process for the Adaptive Funded Projects for all subsequent years. The non-funded projects will then go through a similar grant review process as the projects that receive CDFG funding. CDFG also clarified the following issues for adaptive funded and the non-funded projects:

1) These projects will adhere to the same requirements as projects that are funded through the grant program;
2) These projects will be high priority projects that were developed with assistance by CDFG;
3) Techniques utilized will adhere to the CDFG Habitat Restoration Manual;
4) The 1602 Agreement issued by CDFG will be conditioned upon language stated in the negative declaration and the RGP (including NOAA Fisheries Terms and Conditions, Clean Water Act 401 and 404 requirements); and
5) CDFG oversight will include 100 percent implementation monitoring and 10 percent effectiveness monitoring.

Based on this information, NOAA Fisheries concludes that the authorization of these project types in the RGP remains within the scope of impacts analyzed in the May 21, 2004, biological opinion, provided that CDFG modifies the process for review. This review is necessary to ensure these projects will proceed in the same, or similar, manner as projects analyzed in the biological opinion. NOAA Fisheries requests that CDFG formalize the review process for adaptive funded and non-CDFG funded projects to include NOAA Fisheries and provide the opportunity to review and comment on the projects. With this change in process, the biological opinion reference to projects only funded by CDFG will be modified to include these additional projects as long as the above conditions are met.

2. CDFG requests clarification on the seasonal restrictions for instream activities in flowing streams and the earliest start date possible for work on upslope projects.

NOAA Fisheries restricted instream activities in flowing streams to June 15, through November 1, in the Incidental Take Statement included with the biological opinion. Upslope projects do not have seasonal restrictions in the Incidental Take Statement.

3. CDFG requests that NOAA Fisheries clarify that size requirements for large woody debris (LWD) found in Item #1 on page 5 of the May 21, 2004, biological opinion refers to unanchored applications.

NOAA Fisheries agrees that this sentence in the biological opinion should have made the distinction that the measurement described is for unanchored applications. The "measurement" in the sentence is for unanchored applications.

4. CDFG requests that dewatering should not be required for projects that will result in minor input of sediment, such as placing logs with hand crews, or installing boulder clusters.

NOAA Fisheries agrees with CDFG that for certain projects, stream dewatering is likely to add to adverse environmental impacts. NOAA Fisheries did not require (in the *Description of the Proposed Action* section of the biological opinion) dewatering for all projects occurring in wetted channels, but did describe project types and dewatering on page 7 of the opinion as follows: "The following project activities authorized through the RGP *may* require fish relocation and/or dewatering activities..." In the Incidental Take Statement, NOAA Fisheries provides Terms and Conditions to implement dewatering and salmonid relocation, when such activities are necessary to minimize and avoid injury or death to listed salmonids.

NOAA Fisheries does expect that stream dewatering and salmonid relocation will be utilized for a wide range of projects that occur in wetted channels. Although the measures for work in wetted channels are in the stream crossing section, Part IX of the CDFG Manual, it is NOAA Fisheries' understanding that these measures are not specific only to stream crossing projects. It should be understood that *Measures to Minimize Impacts to Aquatic Habitat and Species During Dewatering of Project Sites* and *Measures to Minimize Injury and Mortality of Fish and Amphibian Species During Dewatering* are applicable to all project types that require work in the wetted stream channel, where appropriate to minimize impacts.

5. CDFG requests that NOAA Fisheries provide guidelines in the biological opinion for CDFG Contract Managers to determine when dewatering is appropriate.

NOAA Fisheries is confident that the CDFG Manual, the Public Notice for the RGP, and this letter provide CDFG Contract Managers and/or project reviewers with sufficient guidance to determine when dewatering is appropriate. For example, the CDFG Manual states, "When construction work must occur within a year-round flowing channel, the work site must be dewatered." The Public Notice states that for minor actions where impacts associated with dewatering would be greater than to complete the project (boulder placement, for example), measures other than dewatering will be put in place to minimize impacts. NOAA Fisheries' position is that for projects that would result in greater impacts due to dewatering and fish relocation, dewatering should not be a part of project implementation. NOAA Fisheries will also provide CDFG with guidance on this issue during project review if needed. See discussion above for #4.

6. Pg. 11, first bullet: CDFG, for clarification, indicates that clean gravel, used as fill, can remain in the stream if the berm is breached or leveled.

This bullet was taken word for word from the CDFG Manual. NOAA Fisheries also allows clean gravel, used as fill, to remain in the stream if the berm is breached or leveled. NOAA Fisheries wishes to specify clean gravel, and not soil or other deleterious fill material.

7. CDFG requests that the biological opinion only require mulching and seeding of exposed soils which may deliver sediment to a stream.

The mulching and seeding guidance referenced within the biological opinion was taken directly from the *Measures to Minimize Loss or Disturbance of Riparian Vegetation*, page IX-51 of the CDFG Manual. Revegetating all disturbed and decompacted areas is a requirement under in the biological opinion for the RGP for Stream Crossing (RGP1), which was the previous permitting vehicle for fish passage enhancement projects prior to issuance of this new CDFG Restoration Program RGP. However, since the RGP1 biological opinion deals exclusively with riparian corridor impacts resulting from culvert modifications, NOAA Fisheries is agreeable to interpreting page 12 of the CDFG Restoration Program RGP biological opinion as requiring mulching and seeding only on exposed soils which may deliver sediment to a stream.

8. CDFG requests clarification on implementation monitoring for annual project activity.

NOAA Fisheries' position is that implementation monitoring should be conducted on completed projects and that projects that are not completed do not need to be included in the implementation monitoring requirement. The terms and conditions of the Incidental Take Statement read: "...Corps and/or CDFG shall perform implementation monitoring on all **completed** restoration projects annually...."

9. CDFG requests that in the absence of historical information, biologists rely on either existing data, anecdotal memory/traditions, and/or professional judgement.

Term and condition 2(b) states, "If the stream in the project location was not passable to, or was not utilized by all life stages of all covered salmonids prior to the existence of the road crossing, the project shall pass the life stages and covered salmonids species that historically did pass there." Referring to fish that "historically did pass there" does not require that historical data is necessary to validate any assumption regarding historical fish passage. Instead, biologists and engineers may use their professional judgement when historical data is lacking.

10. CDFG requests that the revegetation requirement only apply to class I streams and bank stabilization projects.

Again, the requirement within term and condition 3(e) was repeated from the biological opinion written for RGP1 which addressed riparian impacts resulting from culvert modifications. NOAA Fisheries interprets term and condition 3(e) to require revegetation on disturbed areas that are within the riparian corridor or other hydrologically linked upland areas that may deliver sediment to a class I or II stream channel.

11. CDFG comments that the riparian monitoring required is not feasible.

NOAA Fisheries now understands that the riparian monitoring called for under term and condition 3(g) is not likely to be feasible considering the current three year grant cycle. In light of this information, NOAA Fisheries will change the term and condition so that a 10 percent subset of the revegetated sites are monitored through the effectiveness monitoring protocol currently being developed by CDFG (as referenced within term and condition 5(e)).

12. CDFG indicates that hiring a full time geologist is not feasible for CDFG.

NOAA Fisheries agrees with CDFG's comment and will amend the term and condition in to read: "Winterization procedures shall be supervised by a professional trained in erosion control techniques and involve taking necessary measures to minimize erosion on unfinished work surfaces."

13. CDFG requests that monitoring of restoration projects under the RGP be effectiveness monitoring only.

NOAA Fisheries would first like to address the CDFG comment that "validation monitoring is designed to measure biological response resulting from the affect of a combination of individual restoration projects implemented at a stream reach, whole stream, or watershed spatial scale." The draft CDFG document *California Coastal Salmonid Restoration Monitoring and Evaluation Program, Interim Restoration Effectiveness and Validation Monitoring Protocols* outlines several physical parameters that can be used for validation monitoring, meaning validation monitoring need not be limited to just biological responses.

NOAA Fisheries must require effectiveness and validation monitoring of the CDFG Restoration Program, or risk losing Congressional support for future Pacific Coast Salmon Restoration Funding. Utilizing the draft monitoring guidelines identified within term and condition 5(d) and 5(e) is a logical pathway to implementing a sound monitoring program to address effectiveness and validation of a large restoration program such as the CDFG Restoration Program. NOAA Fisheries understands the difficulty CDFG will have adhering to these guidelines during the first few years of the current RGP. NOAA Fisheries will modify the term and condition to reflect a gradual implementation of the validation monitoring program as follows: by year three of the RGP, CDFG shall perform validation monitoring, following protocols outlined in the draft guidelines identified in term and condition 5(d) and 5(e), on 10 percent annually of completed restoration projects.

14. CDFG requests that reporting requirements be tied to the State fiscal year.

The annual report must present information from the previous field season (*i.e.*, March 2005 report would report on the previous field seasons summer 2004 activities). This is a standard term and condition in most biological opinions. NOAA Fisheries needs information from the

previous field season each year in order to review and analyze the amount of potential take prior to the next year's field season.

15. CDFG is concerned that reference to the draft CDFG document *California Coastal Salmonid Restoration Monitoring and Evaluation Program, Interim Restoration Effectiveness and Validation Monitoring Protocols* in the terms and conditions of the Incidental Take Statement locks them into utilizing the protocols presented in the draft document even if these protocols are updated and finalized as scheduled for 2005. NOAA Fisheries' position is that these are interim draft guidelines, and that the most recent version of the protocols will replace this interim version. As per CDFG's request, monitoring will be performed as outlined in the most recent version of the Restoration Effectiveness and Validation Monitoring Protocols or the latest edition of the Restoration Manual (inclusive of a chapter on Restoration Effectiveness and Evaluation Monitoring Protocols).

16. CDFG requests specifics on the monitoring required for the RGP.

This comment has been covered previously under comment #13.

NOAA Fisheries is agreeable to your suggestion of meeting with appropriate CDFG and NOAA Fisheries staffs to coordinate on monitoring requirements. This should facilitate prioritization of ongoing, proposed, and future monitoring efforts, and ensure these efforts meet the requirements of the biological opinion, and are achievable.

If you have any questions or comments regarding this letter, the section 7 consultation, or require additional information, please contact Mr. Jeffrey Jahn at (707) 575-6097.

Sincerely,

for Patrick J. Rutten
Santa Rosa Area Office Supervisor
Protected Resources Division

cc: Mark D'Avignon, Corps of Engineers, San Francisco District
Rob Flourke, California Department of Fish and Game, Yountville
Don Koch, California Department of Fish and Game, Redding
Bob Coey, California Department of Fish and Game, Yountville
Gary Flosi, California Department of Fish and Game, Fortuna
Gary Stacey, California Department of Fish and Game, Redding
Helen Birss, California Department of Fish and Game, Sacramento
Gail Newton, California Department of Fish and Game, Sacramento
Ron Rempel, California Department of Fish and Game, Sacramento
Irma Lagomarsino, NOAA Fisheries, Arcata Area Office
Jeffrey Jahn, NOAA Fisheries, Santa Rosa Area Office
Rick Rogers, NOAA Fisheries, Arcata Area Office

Upper Salinas-Las Tablas Resource Conservation District

65 Main Street, Suite 108, Templeton, CA 93465 / (805) 434-0396 / fax 434-0284

April 22, 2005

Marsha Lee
Department of Planning and Building
County Government Center
San Luis Obispo, CA 93408

RE: County Permit, Santa Rosa Creek bank stabilization project, Fiscalini property, Greenspace
401 Water Quality Certification, 404 Army Corps approval and Streambed Alteration Agmt.

Dear Ms. Lee,

We have attached the 401 Water Quality Certification from State Water Resources Control Board (SWRCB) for the bank stabilization project proposed by Greenspace Cambria Land Trust and the State Department of Fish and Game (DFG) for a site along Santa Rosa Creek, approximately one quarter mile upstream of the Ferasci Road crossing. The project is one of 155 stream restoration projects funded by DFG throughout the State of California for the purpose of improving conditions within Anadromous streams. The Upper Salinas-Las Tablas RCD (US-LT RCD) is assisting Greenspace in coordinating the permits required for this project.

SWRCB approved a master certification for all 155 projects proposed for funding by DFG. Each project is designed using methods consistent with the "California Salmonid Stream Habitat Restoration Manual" prepared by DFG. In addition, DFG obtained the approval from Army Corps (404 Permit), which includes the review of the National Marine Fisheries Service NMFS and Fish and Wildlife Service. Each of the 155 projects, including the proposal for Santa Rosa Creek, has been granted a Streambed Alteration Agreement as well as Mitigated Negative Declaration from DFG.

The project, as designed, will provide for enhanced steelhead habitat conditions and reduce channel erosion along Santa Rosa Creek. During the rain storms of the past month, there was additional bank erosion along the Santa Rosa Creek within the project area. In addition to impacting stream habitat and sedimentation, this erosion has significantly impacted the adjoining farm land. For

these reasons, our agency recommends that the proposed restoration project be constructed as soon as possible in order to reduce the potential for additional erosion in the future.

If you have any questions regarding the master permits obtained for this project, please contact us.

Sincerely,

Donald J. Funk
Executive Director

Attachments

CC Rick Hawley, Greenspace

July xx, 2004

Calvin C. Fong, Chief
Regulatory Branch
U. S. Army Corps of Engineers, San Francisco District
333 Market Street, Room 812
San Francisco, California 94105-2197

Subject: Biological Opinion for the Proposed California Department of Fish and Game Fisheries Restoration Grant Program Regional General Permit, Monterey, San Benito, San Luis Obispo, and Santa Cruz Counties, California (File Numbers 27922N and 22323N) (1-8-03-F/C-49)

Dear Mr. Fong:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the San Francisco District of the U.S. Army Corps of Engineers' (Corps) proposed issuance of a Regional General Permit (RGP), pursuant to section 404 of the Federal Water Pollution Control Act, as amended (Clean Water Act), authorizing projects funded by the California Department of Fish and Game (CDFG) Fisheries Restoration Grant Program (Program). At issue are the effects of the proposed authorization on the federally threatened California red-legged frog (*Rana aurora draytonii*). This document was prepared in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). Your request for formal consultation was received on August 1, 2003.

This biological opinion is based on information contained in your July 30, 2003, request for consultation, the mitigated negative declaration (CDFG 2003), the stream restoration manual (CDFG 2002), telephone and electronic mail communications between our staffs, and our files. A complete administrative record of this consultation is on file in the Service's Ventura Fish and Wildlife Office.

CONSULTATION HISTORY

By letter dated July 30, 2003, you requested our concurrence that the proposed authorization is not likely to adversely affect the federally endangered least Bell's vireo (*Vireo bellii pusillus*), the federally threatened marbled murrelet (*Brachyrampus marmoratus marmoratus*), the federally threatened California red-legged frog or its proposed critical habitat, and the federally threatened Central California Distinct Population Segment (DPS) of the California tiger salamander (*Ambystoma californiense*). The final rule to lsit the California tiger salamander as threatened was published in the Federal Registesr on August 4, 2004 (69 *Federal Register* 47212). You reached this conclusion based on the proposed implementation of several measures intended to avoid effects to these species from project activities.

We concur with your determination that the proposed authorization may affect, but is not likely to adversely affect, the marbled murrelet. Our concurrence is based on the following factors:

1. Qualified biologists will conduct protocol surveys for marbled murrelets at proposed project sites which contain potential marbled murrelet habitat;

2. Work will not be conducted within 0.25 mile of any site with known or potential marbled murrelet habitat between November 1 and September 15. If protocol surveys determine that nesting marbled murrelets do not occur within 0.25 mile of a specific project site, project activities at that site may commence prior to September 15; and

3. Project activities will not remove or degrade suitable marbled murrelet habitat.

We concur with your determination that the proposed authorization may affect, but is not likely to adversely affect, the least Bell's vireo. Our concurrence is based on the following factors:

1. Protocol surveys for least Bell's vireo will be conducted at proposed project sites by a qualified biologist knowledgeable in least Bell's vireo identification and biology;

2. Work will not begin within 0.25 mile of any site with known or potential least Bell's vireo habitat between March 1 and September 15; and

3. Willow branches will not be harvested at any site with potential least Bell's vireo habitat between March 1 and September 15.

We concur with your determination that the proposed authorization may affect, but is not likely to adversely affect, the California tiger salamander. Our concurrence is based on the following factors:

1. Most of the proposed projects will occur in or near streams and riparian corridors;

2. Upslope projects will be limited to road upgrading and decommissioning in areas that are steep, eroding, and often vegetated with trees and shrubs; and

3. California tiger salamanders use ponds and vernal pools for breeding, and existing burrows in grassland habitat for estivation. None of these habitat types is usually located in proximity to anadromous fish-bearing streams, and project activities will avoid effects to pond, vernal pool, and grassland habitats.

We concur with your determination that the proposed authorization may affect, but is not likely to adversely affect, proposed critical habitat for the California red-legged frog. Our concurrence is based on the following factors:

1. Projects implemented under the proposed authorization will not damage or deteriorate any of the primary constituent elements (essential aquatic habitat, associated upland habitat, and dispersal habitat) of the proposed critical habitat as defined in the proposed designation (69 *Federal Register* 19620);

2. Restoration projects implemented under the proposed authorization within proposed critical habitat units will likely improve the quality of California red-legged frog habitat in these areas. This will improve the function and productivity of the proposed critical habitat units for California red-legged frogs;

3. Restoration projects implemented under the proposed authorization will revitalize degraded or impaired aquatic and riparian habitats. This will provide a long-term benefit to the California red-legged frog, and result in higher quality habitat in dispersal corridors and core areas.

We do not concur with your determination that the proposed authorization may affect, but is not likely to adversely affect, the California red-legged frog. One factor contributing to this determination is the proposed relocation of California red-legged frogs from areas where they may be affected by project activities. This activity may injure or kill California red-legged frogs, and requires authorization under a biological opinion.

In your letter requesting our concurrence, you requested initiation of formal consultation if the Service did not concur with your determination. Therefore, we considered your July 30, 2003, letter to be a request for initiation of formal consultation on the potential effects of the proposed authorization on the California red-legged frog. During this process, several conference calls were held between staff members of the Corps, the CDFG, and the Service to clarify the Corps' effects determinations, project description, and proposed protective measures. On May 8, 2004, the Corps and the CDFG provided us with the final information necessary to proceed with this consultation (CDFG 2004).

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The Corps proposes to issue a RGP authorizing the CDFG to fund and carry out various salmonid habitat enhancement and restoration projects through implementation of the Program. The RGP would have a term of 5 years from the date of authorization. Program activities are proposed annually for various watersheds throughout Alameda, Contra Costa, Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Siskiyou, Solano, Sonoma, Trinity, and Ventura Counties. The Corps' proposed authorization addressed by this consultation would apply only to Program projects in

counties within the regulatory jurisdictional boundaries of the Corps' San Francisco District. The Corps' San Francisco District includes all of the above-listed counties except Contra Costa, Glenn, Lake, Solano, and Ventura Counties. Of the resulting geographic area, the Ventura Fish and Wildlife Office has regulatory purview only over Monterey, San Benito, San Luis Obispo, and Santa Cruz Counties. Therefore, this consultation pertains only to Program projects utilizing the proposed authorization that are executed in Monterey, San Benito, San Luis Obispo, or Santa Cruz County.

Individual restoration projects would involve the application of one or more of the restoration treatments described in Part VII of the California Salmonid Stream Habitat Restoration Manual (Restoration Manual) (CDFG 2002) with the exception of dam removal. Dam removal activities are not addressed in this consultation due to the varying potential effects of sediment mobilization.

All projects would be restricted to, and carried out in accordance with, techniques identified in the Restoration Manual. The following descriptions of restoration treatments are summarized from the Restoration Manual; these descriptions are not intended to be exhaustive. Part VII of the Restoration Manual contains more detailed information on specific project methods, and is hereby incorporated by reference. In the following discussion, use of heavy equipment refers to one or more of the following types of equipment: hydraulic excavator, front-end loader, self-propelled logging yarder, or backhoe. The following types of projects and treatments are proposed:

1. Instream Habitat Improvements

   a. Cover structures such as logs, root wads, tree bundles, and boulders would be installed using heavy equipment. Cover structures would increase the quality of pool habitat in a stream.

   b. Boulder structures such as boulder weirs, boulder clusters, and boulder wing-deflectors would be installed using heavy equipment. Boulder structures would break up or diversify stream flow in a particular stream reach, provide instream cover for juvenile salmonids and spawning adults, or recruit spawning gravel.

   c. Log structures such as log weirs, log wing-deflectors, divide logs, digger logs, and Hewitt ramps would be installed using heavy equipment and manual labor. Log structures would provide instream cover for juvenile salmonids and spawning adults, scour pools for rearing habitat, recruit spawning gravel, and stabilize eroding stream banks.

   d. Spawning gravel would be placed using heavy equipment. Gravel would be clean, creek-run ranging from 0.5 inch to 4 inches in diameter.

   e. Fish screens would be installed at water diversion intake sites. Fish screens would prevent entrainment of juvenile salmonids and other

wildlife in water diverted for agriculture, power generations, or domestic use on both gravity flow and pump diversion systems. Fish screens typically consist of perforated metal plate or mesh material with openings sized to prevent entrainment of aquatic wildlife.

2. Fish Passage

a. Obstructions such as log jams or beaver dams would be modified to facilitate fish passage. Log barriers would be modified using either manual labor or heavy equipment.

b. Waterfalls and chutes would be modified by blasting resting pools into bedrock, forming a step-and-pool passage for fish.

c. Landslides would be modified using either manual labor or heavy equipment such as a hydraulic excavator.

d. Man-made obstructions such as dams, sills, and culverts would be addressed through construction of fishways such as step-and-pool, Denil ladders, and Alaskan steep-pass fishways.

e. Culverts would be modified by either constructing back-flooding weirs downstream of the culvert outflow or installing baffles within the culvert.

3. Watershed and Stream Bank Stabilization

a. Boulder riprap to armor stream banks would be installed using heavy equipment such as a hydraulic excavator or backhoe. A gravel blanket or geotextile fabric would be placed on the soil in the area to be covered by riprap. Riprap would be installed beginning in a trench dug at the toe of the bank, and extending up the stream bank to the bankfull discharge level.

b. Log stream bank stabilization structures such as cribbing or bank armoring would be installed using heavy equipment. Log structures may also be installed using manual labor in areas without access for heavy equipment. These structures would be installed by stacking logs against the stream bank and securing them using threaded rebar and/or steel cable. Base logs would be placed in a toe trench below stream grade. When installing log cribbing, tieback logs would be imbedded 4-6 feet into the slope perpendicular to the direction of stream flow. When installing log bank armoring, metal fence posts, culvert stakes, or 'deadman' structures would be substituted for tieback logs.

c. Tree revetments would be used to stabilize vertical, eroding stream banks in low gradient meadow streams. Trees would be cut and laid against the vertical bank, using either heavy equipment or manual labor, with the tree

tops angling downstream. Tree bases would be tied off to the upper stream bank. Branches slow the water velocity and cause suspended sediment to settle, allowing banks to rebuild and vegetation to re-establish.

d. Mulching for erosion control would be conducted by applying weed-free straw or forest leaf litter to bare soil.

e. Revegetation would be accomplished by transplanting, planting container-grown or bare root stock, or sprigging (inserting cut stakes of willows (*Salix spp.*) or cottonwoods (*Populus spp.*)). Transplanting would typically be done using hand excavation. In hard soils, an iron bar or power auger would be used to bore planting holes for cut stakes; otherwise, cut stakes would be driven into the soil by hand.

f. Willow wall revetments, brush mattresses, and willow siltation baffles would also be used to stabilize and revegetate degraded stream banks. These treatments would involve combinations of the following: excavation of a trench at the toe of the stream bank, installation of willow poles perpendicular to the stream bank, weaving willow branches throughout the standing willow poles, or placing and compressing willow branches on the stream bank's soil surface parallel to the stream channel.

g. Checkdams are small dams (less than 10 feet in height) that would be installed across small drainages to reduce water velocity and trap sediment. Checkdams would be constructed using strawbales, rock, brush, small trees, redwood boards, or compacted earth.

h. Waterbars would be installed using hand tools or heavy equipment as a temporary means of breaking surface flow over sloped sections of road. Waterbars would consist of a shallow ditch and rounded berm, less than 2 feet in height, placed diagonally across a road surface.

i. Exclusionary fencing would be installed to prevent livestock from overgrazing riparian vegetation, reducing water quality, and compromising stream bank integrity. Fencing would be constructed approximately parallel to the stream channel, with a setback of at least 25 feet from the top of the stream bank.

Protective measures proposed by the Corps and the CDFG include:

1. At least 15 days prior to the onset of activities, the CDFG will submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities will begin until the CDFG has received written approval from the Service that the biologist(s) is qualified to conduct the work.

2. A Service-approved biologist will survey the work site at least two weeks before the onset of activities. If California red-legged frogs are found in the project area and those individuals are likely to be killed or injured by work activities, the Service-approved biologist will be allowed sufficient time to move them from the site before work activities resume. Only Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

3. Before any construction activities begin on a project, a Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the importance of the California red-legged frog and its habitat, the general measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

4. A Service-approved biologist will be present at the work site until such time as all removal of California red-legged frogs, instruction of workers, and habitat disturbance has been completed. After this time, the contractor or permittee will designate a person to monitor on site compliance with all minimization measures. The Service-approved biologist will ensure that this individual receives training outlined in protective measure 3 above and in the identification of California red-legged frogs. The on-site biological monitor and the Service-approved biologist will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the Corps and Service during review of the proposed action. If work is stopped, the Corps and Service will be notified immediately by the Service-approved biologist or on site biological monitor.

5. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

6. All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 65 feet from any riparian habitat or water body. The Corps and the CDFG will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the CDFG will ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

7. A Service-approved biologist will ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible. Areas disturbed by project activities will be restored and planted with native plants.

8. The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries will be clearly demarcated.

9. Ground-disturbing activities in potential California red-legged frog habitat will be restricted to the period between July 1 and October 15.

10. To control erosion during and after project implementation, the CDFG will implement best management practices, as identified by the Regional Water Quality Control Board.

11. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction and reduce the creation of ponded water. Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

12. A Service-approved biologist will permanently remove, from within the project area, any individuals of exotic species, such as bullfrogs (*Rana catesbiana*), centrarchid fishes, and non-native crayfish to the maximum extent possible. The biologist will have the responsibility to ensure that their activities are in compliance with the California Fish and Game Code.

Table 1 shows the maximum number of California red-legged frog adults, juveniles, tadpoles, and eggs that the Corps and the CDFG anticipate may be injured or killed as a result of project activities conducted under the proposed authorization. Because ground-disturbing project activities in potential California red-legged frog habitat will be restricted to the period between July 1 and October 15, California red-legged frog egg masses should not be encountered. If any of the projected injury or mortality limits are reached, project activities will cease and the Corps will reinitiate formal consultation with the Service.

Table 1. Maximum number of California red-legged frogs that may be injured or killed during Program activities, as proposed by the Corps and the CDFG.

Unit of Measure	Adults or Juveniles	Tadpoles	Egg Masses
Per Project Site	1	10% of those encountered	0
Per Dewatered Area per Project Site	N/A	10% of those encountered	0
Per Watershed	5	10% of those encountered	0
Cumulative Total Per Year	25	10% of those encountered	0

If projects that qualify for authorization under the proposed Regional General Permit have already undergone individual consultation pursuant to section 7(a)(2) of the Act, the requirements of individual project consultation documents will supersede those outlined in this biological opinion. If a proposed project involves additional species or effects not considered in this consultation, the Corps will reinitiate this consultation or consult on the project individually.

STATUS OF THE SPECIES

The California red-legged frog was federally listed as threatened on May 23, 1996 (61 *FR* 25813). A recovery plan has been published (Service 2002). Critical habitat for the California red-legged frog was designated on March 13, 2001 (66 *FR* 14625). On November 6, 2002, the United States District Court for the District of Columbia set aside the designation and ordered the Service to publish a new final rule with respect to the designation of critical habitat for the California red-legged frog (*Home Builders Association of Northern California et al. versus Gale A Norton, Secretary of the Department of Interior et al.* Civil Action No. 01-1291 (RJL) U.S. District Court, District of Columbia.). The Service published a new proposed rule to designate critical habitat for the California red-legged frog on April 13, 2004 (69 *FR* 19620).

Detailed information on the biology of California red-legged frogs can be found in Storer (1925), Stebbins (2003), and Jennings et al. (1992). This species is the largest native frog in the western United States, ranging from 1.5 to 5.1 inches in length. The abdomen and hind legs of adults are largely red; the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish background color. Dorsal spots usually have light centers, and dorsolateral folds are prominent on the back. Tadpoles range from 0.6 to 3.1 inches in length and are dark brown and yellow with dark spots.

California red-legged frogs spend most of their lives in and near sheltered backwaters of ponds, marshes, springs, streams, and reservoirs. Deep pools with dense stands of overhanging willows and an intermixed fringe of cattails are considered optimal habitat. Eggs, larvae, transformed juveniles, and adults also have been found in ephemeral creeks and drainages and in ponds that do not have riparian vegetation. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and can be a factor limiting population numbers and distribution. Some California red-legged frogs have moved long distances over land between water sources during winter rains. Adult California red-legged frogs have been documented to move more than 2 miles in northern Santa Cruz County "without apparent regard to topography, vegetation type, or riparian corridors" (Bulger et al., 2003). Most of these overland movements occur at night.

California red-legged frogs breed from November through March with earlier breeding records occurring in southern localities. California red-legged frogs are often prolific breeders, typically laying their eggs during or shortly after large rainfall events in late winter and early spring. Female California red-legged frogs deposit egg masses on

emergent vegetation so that the masses float on the surface of the water. Egg masses contain about 2,000 to 5,000 moderate-sized (0.08 to 0.11 inch) in diameter, dark reddish brown eggs. Embryos hatch 6 to 14 days after fertilization and larvae require 3.5 to 7 months to attain metamorphosis. Tadpoles probably experience the highest mortality rates of all life stages, with less than 1 percent of eggs laid reaching metamorphosis. Sexual maturity normally is reached at 3 to 4 years of age; California red-legged frogs may live 8 to10 years. Juveniles have been observed to be active diurnally and nocturnally, whereas adults are mainly nocturnal.

The diet of California red-legged frogs is highly variable. Invertebrates are the most common food items for adults, although vertebrates such as Pacific treefrogs (*Hyla regilla*) and California mice (*Peromyscus californicus*) can constitute over half of the prey mass eaten by larger frogs (Hayes and Tennant 1985). Larvae likely eat algae.

The California red-legged frog has been extirpated or nearly extirpated from 70 percent of its former range. Historically, this species was found throughout the Central Valley and Sierra Nevada foothills. At present, California red-legged frogs are known to occur in 243 streams or drainages from 22 counties, primarily in central coastal California. The most secure aggregations of California red-legged frogs are found in aquatic sites that support substantial riparian and aquatic vegetation and lack non-native predators. Over-harvesting, habitat loss, non-native species introduction, and urban encroachment are the primary factors that have negatively affected the California red-legged frog throughout its range (Jennings and Hayes 1985, Hayes and Jennings 1988). Ongoing causes of decline include direct habitat loss due to stream alteration and disturbance to wetland areas, indirect effects of expanding urbanization, and competition or predation from non-native species.

ENVIRONMENTAL BASELINE

The mechanisms for decline of the California red-legged frog are poorly understood. Although presence of California red-legged frogs is correlated with stillwater pools deeper than approximately 1.6 feet, riparian shrubbery, and emergent vegetation (Jennings and Hayes 1985), there are numerous locations in the species' historical range where these elements are well represented yet California red-legged frogs appear to be absent. The cause of local extirpations therefore does not appear to be restricted solely to loss of aquatic habitat. The most likely causes of local extirpation are thought to be changes in faunal composition of aquatic ecosystems (i.e., the introduction of non-native predators and competitors) and landscape-scale disturbances that disrupt California red-legged frog population processes, such as dispersal and colonization. The introduction of contaminants or changes in water temperature may also play a role in local extirpations. These changes may also promote the spread of predators, competitors, parasites, and diseases.

The following environmental baseline information is based on data compiled from an electronic database of interagency consultations conducted by the Service's Ventura Fish and Wildlife Office (VFWO) on projects in Santa Cruz, San Benito, Monterey, and San

Luis Obispo Counties (Service 2004a). Since the California red-legged frog was proposed for Federal listing on February 2, 1994 (59 *FR* 4888), the VFWO has completed 53 formal conferences and consultations on the effects of proposed projects on the California red-legged frog in the action area for this consultation (Monterey, San Benito, San Luis Obispo, and Santa Cruz Counties). None of these conferences or consultations were expected to appreciably reduce the environmental baseline for the California red-legged frog in the action area. Since 1994, approximately 86.1 acres of California red-legged frog habitat has been restored or conserved in the action area through the administration of Partners for Fish and Wildlife funding (Service 2004b).

The following information is taken from the California red-legged frog recovery plan (Service 2003). The action area for this consultation includes parts of 3 of the 8 recovery units identified in the recovery plan: the Central Coast unit; the Diablo Range and Salinas Valley unit; and the Northern Transverse Ranges and Tehachapi Mountains unit. California red-legged frogs were once widespread and abundant in the inner Coast Ranges between the Salinas River drainage and the San Joaquin Valley. Currently, no more than 10 percent of the historic localities within the Salinas River hydrographic basin and inner Coast Ranges still support this species. California red-legged frogs are known to occur in the Pajaro, Salinas and San Benito River drainages and at Pinnacles National Monument.

The central California coast supports the greatest number of drainages currently occupied by California red-legged frogs. Almost all coastal drainages from the Santa Cruz/San Mateo County line south to the city of Santa Cruz are occupied by California red-legged frogs. The Elkhorn Slough watershed supports this species. California red-legged frogs occur in the Carmel River watershed and most of its tributaries; Rancho San Carlos, a private ranch in this watershed is one of the few places throughout the species range that is known to support more than 350 adult California red-legged frogs. Nearly all coastal drainages in Monterey County north of Salmon Creek support California red-legged frogs. In San Luis Obispo County, California red-legged frogs are found in many streams, stock ponds, dune ponds, and springs on the coastal plain and western slopes of the Santa Lucia Range from San Carpoforo Creek in the north to the Santa Maria River drainage in the south.

EFFECTS OF THE ACTION

Direct effects to adults, sub-adults, tadpoles, and eggs of the California red-legged frog in the footprint of projects utilizing the proposed authorization would include injury or mortality from being crushed by earth-moving equipment, construction debris, and worker foot traffic. These effects would be reduced by minimizing and clearly demarcating the boundaries of the project areas.

Relocating California red-legged frogs out of harm's way may further reduce injury or mortality. However, injury or mortality of California red-legged frogs may occur as a result of improper handling, containment, or transport of individuals or from releasing them into unsuitable habitat (e.g., where exotic predators are present). Observations of

diseased and parasite-infected amphibians are now frequently reported. This has given rise to concerns that releasing amphibians following a period of captivity, during which time they can pick up infections of disease agents, may cause an increased risk of mortality in wild populations. Amphibian pathogens and parasites can also be carried between habitats on the hands, footwear, or equipment of fieldworkers, which can spread them to localities containing species which have had little or no prior contact with such pathogens or parasites. Use of a Service-approved biologist would reduce or prevent improper handling, containment, or transport of California red-legged frogs.

Work activities, including noise and vibration, may cause California red-legged frogs to leave the work area. This disturbance may increase the potential for predation and desiccation. Minimizing the area disturbed by project activities may reduce the potential for dispersal resulting from the action. California red-legged frogs are more likely to disperse overland in mesic conditions. Because the CDFG would primarily be executing the proposed projects during the dry season, these impacts are less likely. As long as no substantial rainfall (substantial rainfall = greater than 0.5 inch of rain in a 24-hour period) occurs, California red-legged frogs are unlikely to be at risk.

Tadpoles may be injured or killed if entrained by pump or water diversion intakes. Screening pump intakes with wire with not greater than 0.2-inch diameter mesh may reduce the potential that tadpoles would be caught in the inflow.

If water that is impounded during or after work activities creates favorable habitat for non-native predators, such as bullfrogs, crayfish, and centrarchid fishes, California red-legged frogs may suffer abnormally high rates of predation. Additionally, any time California red-legged frogs are concentrated in a small area at unusually high densities, native predators such as great blue herons (*Ardea herodias*), great egrets (*A. alba*), Virginia opossums (*Didelphis virginiana*), and raccoons (*Procyon lotor*) may feed on them opportunistically. This impact can be minimized by avoiding creation of ponded water as a result of project actions such as dewatering the work area.

Trash left during or after project activities could attract predators to work sites, which could, in turn, prey on California red-legged frogs. For example, raccoons are attracted to trash and also prey opportunistically on the California red-legged frog. This potential impact can be reduced or avoided by careful control of waste products at all work sites.

Accidental spills of hazardous materials or careless fueling or oiling of vehicles or equipment could degrade water quality or upland habitat to a degree where California red-legged frogs are adversely affected or killed. The potential for this effect to occur can be reduced by thoroughly informing workers of the importance of preventing hazardous materials from entering the environment, locating staging and fueling areas a minimum of 65 feet from riparian areas or other water bodies, and by having an effective spill response plan in place.

Work in live streams or in floodplains could cause unusually high levels of siltation downstream. This siltation could alter the quality of the habitat to the extent that use by

individuals of the species is precluded. Implementing best management practices for erosion control and reducing the area to be disturbed to the minimum necessary should decrease the amount of sediment that is washed downstream as a result of project activities.

Uninformed workers could disturb, injure, or kill California red-legged frogs. The potential for this effect to occur may be greatly reduced by informing workers of the presence and protected status of this species and the measures that are being implemented to protect it during project activities.

The restoration projects that would utilize the proposed authorization are intended to provide additional habitat for and increased populations of steelhead (*Oncorhynchus mykiss*) and coho salmon (*Oncorhynchus kisutch*) in the respective project areas. The effects of potentially increasing predators on California red-legged frogs cannot be accurately predicted. California red-legged frogs and steelhead presumably occurred sympatrically in many coastal watersheds prior to the onset of human disturbance. Although we anticipate that some predation of California red-legged frogs by salmonid fishes may occur, this level of predation is not expected to appreciably alter the population structure within the project areas.

The Corps' proposed authorization of the CDFG Program is not expected to result in the loss of California red-legged frog habitat. The restoration projects will provide more stable stream banks, better water quality through decreased erosion and sediment loading, and shelter along stream banks for California red-legged frogs. Additionally, many of the projects will improve California red-legged frog habitat by creating additional pools and providing a more natural water flow regime by eliminating or altering fish passage barriers. The restoration projects will contribute to the local recovery of the California red-legged frog by removing non-native predators such as bullfrogs, which out-compete and ultimately displace California red-legged frogs from suitable habitat, and by improving the riparian buffer along streams which should reduce the movement of pesticides into the aquatic environment.

The Corps' proposed authorization would affect a small number of California red-legged frogs, if any occur in the areas that would be temporarily disturbed by project activities. Because of the small size of the work areas, the temporal nature of the projects, the implementation of the projects in the dry season, and the proposed protective measures, we anticipate that few, if any, California red-legged frogs are likely to be killed or injured during project activities. The areas disturbed by Program projects constitute a small portion of the available California red-legged frog habitat throughout the Corps' San Francisco District's jurisdiction; additionally, disturbed areas will be restored and planted with native plants. Restoration and enhancement of riparian vegetation in project sites is likely to increase the number and quality of cover sites and the diversity and abundance of prey species for California red-legged frogs. The proposed authorization is likely to improve the quality of habitat for the California red-legged frog in areas affected by projects implemented under the Program.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Agricultural land use throughout the Pajaro and Salinas River watersheds is likely to increase due to the high productivity of soils in these areas. The health of riparian areas throughout much of the action area is also threatened by livestock grazing and ground water pumping. Continued residential and commercial development is also expected in the action area. Indirect effects on California red-legged frogs such as pollutant runoff, sedimentation of aquatic habitats, and disruption of dispersal corridors will likely be amplified as a result of increased development. The Service is negotiating the development of several habitat conservation plans in the action area that would include minimization and mitigation for impacts to California red-legged frogs.

We are currently unaware of other non-Federal actions that are reasonably certain to occur in the action area that may adversely affect the California red-legged frog. For several reasons, including lack of access to many privately-owned reaches of drainages in the action area, the degree to which these actions may affect the status of the California red-legged frog within the action area cannot be accurately determined at this time.

CONCLUSION

After reviewing the current status of the species, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the Corps' issuance of the CDFG Fisheries Restoration Grant Program RGP, as proposed, is not likely to jeopardize the continued existence of the California red-legged frog.

We have reached this conclusion based on the following reasons:

1. The Corps and the CDFG have proposed measures to minimize the potential adverse effects of project activities on the California red-legged frog;

2. Few, if any, California red-legged frogs are likely to be killed or injured during project activities; and

3. The overall quality of California red-legged frog breeding, foraging, and dispersal habitat would be improved as a result of improved water quality, reduced sedimentation, and habitat enhancement associated with Program projects.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibits the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary. The Corps must make them binding conditions of its authorization issued to the CDFG for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps fails to require the CDFG to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the authorization, the protective coverage of section 7(o)(2) may lapse.

Incidental take of California red-legged frogs will be difficult to detect because of their small body size and finding a dead or injured specimen is unlikely. For actions covered by this consultation, some harassment and mortality could be directly observed from California red-legged frogs captured during translocation efforts. However, mortality from other sources would be difficult to observe. The observed take may be lower than the actual take. However, with the implementation of the reasonable and prudent measures, the effects of the unobserved take would not change our analysis of effects of the actions covered by this biological opinion.

Based on the take limits proposed by Corps and the CDFG in Table 1 of the Description of the Proposed Action portion of this biological opinion, the maximum amount of incidental take in the form of injury or mortality that may occur as a result of Program project activities is as follows:

Unit of Measure	Adults or Juveniles	Tadpoles	Egg Masses
Per Project Site	1	10% of those encountered	0
Per Dewatered Area per Project Site	N/A	10% of those encountered	0
Per Watershed	5	10% of those encountered	0
Cumulative Total Per Year	25	10% of those encountered	0

If any California red-legged frogs are found dead or injured, the Corps or the CDFG must contact our office immediately so we can review the project activities to determine if additional protective measures are needed. Project activities may continue during this review period, provided that all protective measures proposed by the Corps and the CDFG and the terms and conditions of this biological opinion have been and continue to be implemented. California red-legged frogs may be taken only within the boundaries of individual project areas. This biological opinion does not authorize any form of take that is not incidental to implementation of the Program projects within the boundaries covered under the Corps' jurisdiction.

We anticipate that few California red-legged frogs will be killed or injured during projects conducted under the proposed authorization. All California red-legged frog adults, juveniles, and tadpoles that are at risk of injury or death from project activities within the boundaries of work areas may be taken through harassment during translocation activities.

This biological opinion does not exempt any form of take that is not incidental to the execution of Program project activities that are analyzed by this biological opinion. If the amount of anticipated incidental take is exceeded, the exemption from the prohibition against take provided by this biological opinion may lapse. If the amount of incidental take by any geographic or temporal unit of measure described above (e.g., per project site, per dewatered area, per watershed, per year) is reached, project activities will cease and the Corps will reinitiate formal consultation with the Service.

REASONABLE AND PRUDENT MEASURES

The Service believes that the following reasonable and prudent measures are necessary and appropriate to minimize take of California red-legged frogs:

1. Biologists must be authorized by the Service before they survey for, capture, and move California red-legged frogs from the work areas.

2. California red-legged frogs that are at risk must be moved from work areas.

3. The CDFG must implement well-defined measures to ensure California red-legged frogs are not killed or injured directly or indirectly by project activities.

4. Biologists who handle California red-legged frogs must ensure that their activities do not transmit diseases.

The Service's evaluation of the effects of the proposed action includes consideration of the measures to minimize the adverse effects of the proposed action on the California red-legged frog that were developed by the CDFG and repeated in the Description of the Proposed Action portion of this biological opinion. Any subsequent changes in these measures proposed by the Corps or the CDFG may constitute a modification of the

proposed action and may warrant reinitiation of formal consultation, as specified at 50 CFR 402.16. These reasonable and prudent measures are intended to supplement the protective measures that were proposed by the Corps and the CDFG as part of the proposed action.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, the Corps must ensure that the CDFG complies with the following terms and conditions, which implement the reasonable and prudent measures. These terms and conditions are non-discretionary.

1. The following term and condition implements reasonable and prudent measure 1:

   The capture, handling, and monitoring of California red-legged frogs must be conducted only by Service-approved biologists. Meredith Hardy and Margaret Roper are authorized to conduct these activities. If the CDFG wishes to use additional biologists, it must provide their qualifications to the Service at least 15 days before they are to begin work. Additional biologists must not capture, handle, and monitor California red-legged frogs (unless under the direct, on-site supervision of Meredith Hardy or Margaret Roper) without written approval from the Service.

2. The following terms and conditions implement reasonable and prudent measure 2:

   a. Prior to the onset of any project-related activities, the approved biologists must identify appropriate areas to receive translocated California red-legged frog adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain suitable habitat, not be affected by project activities, and be free of exotic predatory species (i.e., bullfrogs, crayfish) to the best of the approved biologists' knowledge.

   b. If California red-legged frogs are found and these individuals are likely to be killed or injured by work activities, the Service-approved biologists must be allowed sufficient time to move them from the site before work activities resume. The Service-approved biologist must relocate the California red-legged frogs the shortest distance possible to one of the predetermined areas discussed in term and condition 2(a) of this biological opinion. The Service-approved biologist must maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs (digital preferred)) to assist him or her in determining whether translocated animals are returning to the point of capture. Only California red-legged frogs that are at risk of injury or death by project activities may be moved.

3. The following term and condition implements reasonable and prudent measure 3:

In a project involving installation of a fish screen on a water diversion intake, the screen mesh must not be larger than 0.2 inch to prevent California red-legged frogs from being entrained in the diversion system.

4. The following term and condition implements reasonable and prudent measure 4:

To ensure that diseases are not conveyed between work sites by the Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force must be followed at all times. A copy of the code of practice is enclosed.

REPORTING REQUIREMENTS

The Corps or the CDFG must submit an annual report of implemented projects to the Service's Ventura Fish and Wildlife Office (2493 Portola Road, Suite B; Ventura, California 93003). The report must include: (1) a table documenting the number of California red-legged frogs killed, injured, and handled during each Program project that utilizes the Corps' proposed authorization; (2) a summary of how the terms and conditions of this biological opinion and the protective measures proposed by the Corps and the CDFG worked; and (3) any suggestions of how these measures could be revised to improve conservation of this species while facilitating compliance with the Act. This information will assist the Service in evaluating future actions for the conservation of the California red-legged frog. Reports must be submitted to the Service's Ventura Fish and Wildlife Office by January 31 of each year the Corps' proposed authorization is valid.

DISPOSITION OF DEAD OR INJURED SPECIMENS

Within 3 days of locating any dead or injured California red-legged frogs, the Corps or the CDFG must notify the Service's Division of Law Enforcement in writing (370 Amapola Avenue, Suite 114, Torrance, California 90501) and the Ventura Fish and Wildlife Office by telephone ((805) 644-1766) and in writing. The report must include the date, time, location of the carcass, a photograph, cause of death, if known, and any other pertinent information.

Care must be taken in handling dead specimens to preserve biological material in the best possible state for later analysis. Should any injured California red-legged frogs survive, either the Corps or the CDFG must contact the Service regarding their final disposition. The remains of California red-legged frogs must be placed with the California Academy of Sciences Herpetology Department (Contact: Jens Vindum, Collections Manager, California Academy of Sciences Herpetology Department, Golden Gate Park, San Francisco, California, 94118, (415) 750-7037). The Corps or the CDFG should make arrangements with the California Academy of Sciences regarding proper disposition of potential museum specimens prior to the commencement of project activities.

In the case of take or suspected take of listed species not exempted in this biological opinion, the Ventura Fish and Wildlife Office must be notified within 24 hours.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. We recommend the following conservation measures to promote the recovery of listed and unlisted species:

1. We recommend that the Service-approved biologists relocate any southwestern pond turtles (*Clemmys marmorata pallida*), California legless lizards (*Anniella pulchra*), western spadefoot toads (*Scaphiopus hammondii*), and any other native reptiles or amphibians found within work areas to suitable habitat outside of project areas, if such actions are in compliance with State laws.

2. We recommend that revegetated areas be monitored for a minimum of five years to ensure that revegetation is successful.

The Service requests notification of the implementation of any conservation recommendations so that we may be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats.

REINITIATION NOTICE

This concludes formal consultation on the Corps' proposed issuance of the California Department of Fish and Game Fisheries Restoration Grant Program Regional General Permit. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions, please contact Roger Root of my staff at (805) 644-1766.

Sincerely,

Diane K. Noda
Field Supervisor

Enclosure

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The Declining Amphibian Populations Task Force Fieldwork Code of Practice

1. Remove mud, snails, algae, and other debris from nets, traps, boots, vehicle tires, and all other surfaces. Rinse cleaned items with sterilized (e.g., boiled or treated) water before leaving each work site.

2. Boots, nets, traps, and other types of equipment used in the aquatic environment should then be scrubbed with 70 percent ethanol solution and rinsed clean with sterilized water between study sites. Avoid cleaning equipment in the immediate vicinity of a pond. wetland, or riparian area.

3. In remote locations, clean all equipment with 70 percent ethanol or a bleach solution, and rinse with sterile water upon return to the lab or "base camp.". Elsewhere, when washing machine facilities are available, remove nets from poles and wash in a protective mesh laundry bag with bleach on the "delicates" cycle.

4. When working at sites with known or suspected disease problems, or when sampling populations of rare or isolated species, wear disposable gloves and change them between handling each animal. Dedicate sets of nets, boots, traps, and other equipment to each site being visited. Clean them as directed above and store separately at the end of each field day.

5. When amphibians are collected, ensure that animals from different sites are kept separately and take great care to avoid indirect contact (e.g., via handling, reuse of containers) between them or with other captive animals. Isolation from unsterilized plants or soils which have been taken from other sites is also essential. Always use disinfected and disposable husbandry equipment.

6. Examine collected amphibians for the presence of diseases and parasites soon after capture. Prior to their release or the release of any progeny, amphibians should be quarantined for a period and thoroughly screened for the presence of any potential disease agents.

7. Used cleaning materials and fluids should be disposed of safely and, if necessary, taken back to the lab for proper disposal. Used disposable gloves should be retained for safe disposal in sealed bags.

The Fieldwork Code of Practice has been produced by the Declining Amphibian Populations Task Force with valuable assistance from Begona Arano, Andrew Cunningham, Tom Langton, Jamie Reaser, and Stan Sessions.

For further information on this Code, or on the Declining Amphibian Populations Task Force, contact John Wilkinson, Biology Department, The Open University, Walton Hall, Milton Keynes, MK7 6AA, UK.
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